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FARM & FIRESIDE

The National Farm Magazine

July 1921

5¢ A Copy

Your 4 Big Problems—

See Page 3

The Direct Route — to Great Grain Profit

U.S. Grain Growers, Inc.

An Organization of Farmers, by Farmers, for Farmers

TO make it possible for the farmer to control the marketing of his own grain instead of allowing grain speculators to manipulate the market to their own great profit—this organization has been established. The vital need for an organization of this kind was clearly shown in the report of the Farmers Marketing Committee of Seventeen. And now the U. S. Grain Growers, Inc., is fully organized—on a sane, sound working basis—with definite plans for immediate betterment of grain marketing conditions—"open for business." It is ***your*** organization, ready to help you to secure greater profits from the grain you grow. This is purely ***a farmers' organization.*** Only actual farmers who raise grain for market can become members, officers or directors.

The Plan of the Committee of Seventeen Provides Direct Grain Marketing Methods—Controlled by Farmers

THIS plan is bound to materially increase the net return to the grain grower—without increasing the price to the consumer. The enormous waste of present methods of speculator-controlled distribution will be eliminated. The wild price fluctuations that now characterize the grain market can, and will be, brought down by the normal control of natural supply and demand. Glutted markets—with corresponding breaks in prices—will be prevented.

The U. S. Grain Growers, Inc., which will handle the actual marketing of the members' grain, is a non-profit, non-capital stock association. Every dollar received from the sale of the grain, less the actual cost of operation, will go straight back to the growers through the local elevator company or through the growers' local association. The present system of farmers co-operative elevators will not be scrapped, but will be made a part of the whole marketing plan. Ample financial resources for carrying the grain, from harvest time to the most favorable marketing time, will be provided.

"It is purely a co-operative plan offered in competition with existing unsatisfactory methods of marketing. The plan differs from existing marketing methods chiefly in that it recognizes capital as a servant—only remunerating it for its service value—and returns to the producer the proceeds of his toil in proportion to his patronage." C. H. Gustafson, Pres. U. S. Grain Growers, Inc., a Nebraska Farmer.

Farmer-Owned Elevators and Warehouses Farmer-Owned Sales and Export Corporations—Farmer-Owned Finance Corporation

"There is just as much reason why the U. S. Department of Agriculture should assist the farmer in developing methods of marketing his crops efficiently as why it should assist him in increasing his production. We should follow exactly the same policy with reference to marketing that we have followed with reference to production." Hon. Henry C. Wallace, Sec'y, U. S. Department of Agriculture.

GRAIN growers have long realized their own helplessness in getting a fair price for their products. The marketing of America's most valuable commodity has been entirely controlled by manipulators and speculators. The grain producers of this country, representing millions upon millions of dollars of invested capital, have had to sit idly by and watch those on the "inside" play with prices. Here at last is an organization national in scope, broad-gauge in policy, built to benefit consumer and producer alike—a farmer-owned, farmer-controlled organization which will make it possible for the grain growers to give themselves a square deal in the fullest sense of the word—***not just for one year but for every year***

Free Booklet Clearly Explains Entire Plan

Plans are now being perfected for organizing the grain growers in each state. In the near future, farmers like yourself, with nothing to gain which you will not share, are coming to call on you. They are going to ask you to take out a membership at a cost of only $10.00. The best way to be ready to talk with these organizers is to get the complete story of this big plan before you—without delay. Write today for free booklet which explains the whole proposition in detail—answers every question you could possibly ask—shows you clearly why this is the greatest forward step ever taken in the interests of the grain growers of America. This coupon or a post card will bring the book without expense or obligation. Write today—NOW.

Dept. of Information (Desk A)
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You may send me, free of charge, the booklet explaining your direct grain marketing plan.

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U. S. Grain Growers, Inc.

CHICAGO, ILLINOIS

Your 4 Big Problems

Taxes, Tariff, Transportation, Marketing

How the Farm Bureau proposes to get your opinion on them and then push the kind of legislation that will make them give the best service for the least money

By Trell W. Yocum

Managing Editor of Farm and Fireside

SINCE the American Farm Bureau Federation was founded twenty months ago, the executive committee of that organization has been gathering facts to determine what laws are needed to put farming on a basis of equal opportunity with other businesses. The committee has approached this great problem so carefully that a few of the less thoroughgoing members have asked impatiently: "Why don't you give us results?"

Sound results in matters of such magnitude and importance are not obtained over night.

And it must be said to the credit of the members of that committee that none of them has gone off half-cocked. Now that some definite recommendations are ready, they may be accepted or rejected by you at their face value.

The committee has been sensible and tactful in that, instead of saying, "These things must be done because we know they should be done," they say:

"Here are our legislative recommendations. We have investigated each question thoroughly, and if you individual members of the Farm Bureau approve, we will use the power which you have given us, to see that these recommendations are made into laws."

But the members of this committee are elected, through your county and state organizations, by you. They are supposed to outline and support legislation that has been approved by a majority of the Farm Bureau members in the country. How will they find out the attitude of you individual members? Also, what are some of the big legislative questions on which you will be asked to express an opinion?

Not long ago I talked with O. E. Bradfute, vice president of the Farm Bureau Federation, about these things. Mr. Bradfute, in addition to being a good farmer and stockman, is one of the Corn Belt's most able citizens, and his carefully thought-out ideas are worth passing on.

"If the American Farm Bureau is to fill the important niche that it should," he said, "it must continue to build as it has started—from the bottom up. By that I mean that it must carry out the wishes of its members back in the local Farm Bureau units. It cannot become a powerful representative of farmers if the leaders disregard the will of individual members. Of course, you know there are hundreds of people who say they can interpret what the average farmer is thinking about, but the American Farm Bureau officials are not going to enter into any such guessing contest. They are going to know. How? There are several simple methods.

"First, we are going to depend upon the various state farm bureaus for a part of our information, and they, in turn, will depend upon the county farm bureaus. When there is any proposed legislation that will affect a special group of farmers, say cotton or wheat, the States in those groups will be consulted. If there is any doubt as to their attitude, then a poll of votes will be taken.

"For instance, a county may be divided into ten districts. Several men in each district will be assigned ten or twenty member's names, and he will call them on the 'phone and get each to register a vote of yes or no on the question. These men, in turn, will 'phone the results to the county headquarters, and from there the county vote will be 'phoned into the state headquarters. Within forty-eight hours, on an important question, the national officers will have a complete vote from all the States. When we have more time, and the case justifies it, a complete poll will be taken by mail, though I feel that the telephone poll will be the most satisfactory. In this way every Farm Bureau member in the United States will have an opportunity to express his opinion on every vital question.

"Don't you think it will have more weight with a senator or congressman to say, 'Here is how our farmers stand on this question by actual vote taken yesterday,' than to say, 'In my opinion, this is the opinion of the farmers'?"

Some details of this plan of registering the will of individual farmers remain to be worked out, but in a general way the plan outlined by Mr. Bradfute is being followed.

WHAT then, are some of the big legislative questions that will affect your interests as a farmer, on which you will be asked to express your views? There are at least four subjects, and possibly five, that will come before this session of Congress, and it would be difficult to put your finger on any one and say, "This is the most important." The three T's—transportation, taxes, and tariff—will come in for their share of legislative action, while farm finance and marketing legislation will not be ignored.

A month or so ago the executive committee of the American Farm Bureau Federation, together with one representative from each state federation, met in Washington to consider a tentative legislative program. This committee called before it the best minds in the country on the subjects which were under consideration, and the assistance which these experts gave was of great help in completing the legislative program outlined as follows, and on which you will have an opportunity to say what you think should be done.

When Secretary of Commerce Hoover appeared before the committee, he referred to the transportation situation as one needing immediate attention.

"Unless we can readjust our railroad rates," he said, "we will have to rewrite the whole agricultural geography of the United States. Our present rates will soon move our granaries to foreign shores, for to-day it costs 30 cents per bushel to ship grain from Missouri to New York, and the same amount can be shipped from Argentina for 10 cents.

"We should take a lesson from Europe, and think of our agriculture. Those countries have developed industry to the detriment of agriculture; have imperiled their national defense and even their civilization. We cannot afford to depend upon overseas for our food, for it undermines our basic industry."

The Farm Bureau officials call to the attention of its members the fact that the transportation act of 1920 contained a provision which attempts to compel the Interstate Commerce Commission to make rates sufficient to produce a minimum net return of 5½ per cent or more above all expenses and taxes on the present valuation of American railroads. The executive committee believes that this provision is wrong, as it attempts to make a government guaranty on the cost-plus basis. As a result, this provision has naturally caused the Commission to establish excessive increases in rates which have contributed their full share toward the paralysis of American industry and agriculture.

NOW the inconsistent part of the whole affair is that these increases in rates have come at a time when all lines of business are reducing their charges. And why?

Well, one of the big reasons is given in the following quotation from the Boston "Herald," which has made an extensive investigation of the railroad situation:

"In 1917 it took 303,000 skilled workers to run the railroads of the United States. In 1920 it took 444,000 skilled workers, and the number of cars and locomotives had increased but little.

"In 1917 the people who travel and ship goods by rail paid these skilled workmen $318,000,000. In 1920 the people were paying them at the rate of $890,000,000 a year.

"For every two skilled workmen employed on the roads in 1917 three are now in the service. For every dollar the public paid these men in 1917 the public now pays more than three dollars. [CONTINUED ON PAGE 23]

Just "Passing New Laws" Won't Solve the Farmer's Problems

IT MIGHT be well to inject a warning here to all farmers not to expect too much from legislation. That applies to all legislation, national, state, and local. There are certain things legislation can do. There are certain other things it cannot do, but is often expected to do. The following brief explanation may help you think clearly on this subject:

The Government of this country is not supposed to run anybody's business. Government's job is to keep the channels of trade open so that all classes of people will have an equal opportunity to run their own businesses. Outside of that, the Government must leave the farmer to solve the farmer's problems, the banker to solve the banker's problems, the manufacturer to solve the manufacturer's problems, and so on.

Government, in short, is nothing but a police force whose duty it is to see that we all have a chance to earn a living, and that we all play fair with each other while we are doing it. If you are incompetent, Government can pass laws until it is black in the face and it will never make you competent. If you are dishonest, no law that Government can pass will make you honest. But it will take care of you at a poor farm if you are too incompetent, and put you in jail if you are too dishonest. These things it must do for the protection of other men.

All Government can do for the American farmer is to clear the trade tracks so that he will have as good a chance to be a success in business as any other man. The next time a new law is proposed to you, test it by this standard and see what conclusion you arrive at.

Now as to the Farm Bureau movement:

The Farm Bureau movement is promising. FARM AND FIRESIDE hopes it will succeed. No one can keep it from succeeding but the men who are its members. By the same token, they are the only ones who can make it succeed. The Farm Bureau has made mistakes, and will make more. But FARM AND FIRESIDE is not worried about that. So long as it continues to apply to its great and vital problems the intelligence of broad-gauge men, so long as it minimizes internal bickerings and magnifies the serious duty it owes to the future of American Agriculture and the American people, so long as it keeps its feet on the ground and its ears attuned to the controlling voice of the rank and file of its members and the common interests of the whole country, so long will FARM AND FIRESIDE approve the movement, and no longer.

THE EDITOR.

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A Great Pasture Experiment I Saw at Cockle Park, in England

By Charles E. Thorne

Formerly Director of the Ohio Agricultural Experiment Station at Wooster

NOTE: This is the fifth of a series on European agriculture which Dr. Thorne has written from observations made last summer. Dr. Thorne made this trip for FARM AND FIRESIDE, and his articles will appear exclusively in this magazine.

NORTHUMBERLAND is the northeastern county of England. Its total area is 1,284,000 acres, of which about 700,000 acres are in crops and pasture, the remainder being the mountains and moorlands of the Cheviot Hills.

The larger part of the country lies north of the 55th parallel, so that its summers are short and cool, frosts being liable to occur any month of the year except July. The average rainfall is only 28 inches, but it is well distributed.

Newcastle-upon-Tyne, a city of 266,000 people, is on its southern boundary, and Berwick-on-Tweed, for the possession of which the Scotch and English fought for centuries, is in its northeastern corner. Grazing is the leading agricultural industry of the country.

In 1891 the county council of Northumberland agreed to make a contribution of 500 pounds a year toward the support of a department of agriculture and forestry in Armstrong College, Newcastle-upon-Tyne, and the establishment of local stations for manurial trials and demonstrations was made an important part of the work of that department. By 1896 such demonstrations had been undertaken on 46 farms in Northumberland, Durham, and Cumberland.

But it soon became apparent that, while landowners and farmers were willing to coöperate in this work up to a certain point, they could not be depended upon to carry it for a sufficient length of time, and to conduct it with such thoroughness as to produce definite results.

In 1896 the county council leased for twenty-one years the farm of Cockle Park, containing 400 acres and lying about 21 miles north of Newcastle, and in 1917 the lease was renewed for another twenty-one-year period, and 60 acres more land was added.

In 1919 pastures and meadows occupied nearly 530,000 acres in Northumberland, nearly four fifths of this area being in permanent pasture. Wheat occupied 17,000 acres, which was more than twice the area given to that crop before the Great War; 91,000 acres were given to barley and oats, and 32,000 acres to turnips and swedes. The problem of maintaining the pastures at the highest point of productiveness most appropriately became the leading work of the county experiment farm.

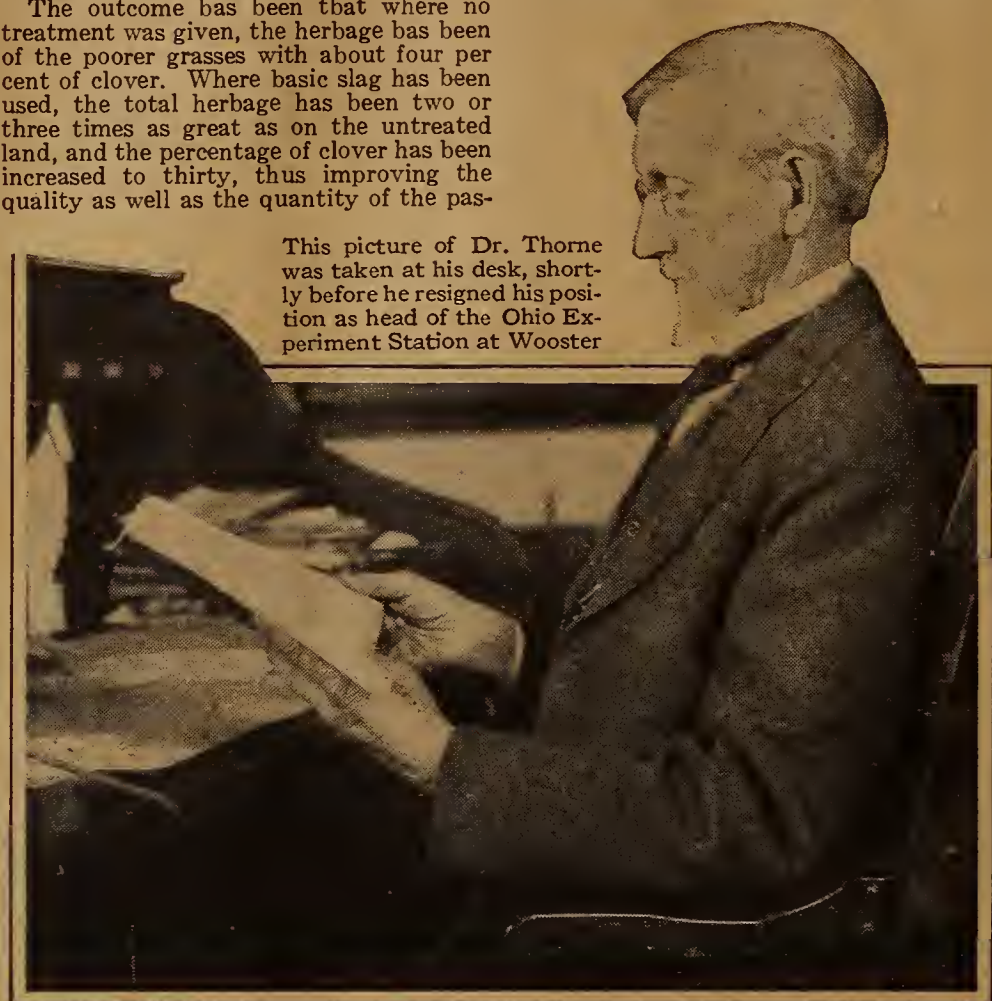
THE work was inaugurated and conducted for four years by Prof. W. Somerville of Oxford; it was then carried forward by Prof. Thomas H. Middleton (now assistant secretary of the Ministry of Agriculture) until his appointment to the chair of Agriculture in the University of Cambridge, when he was succeeded by Prof. Douglas A. Gilchrist, under whose guidance the writer had the good fortune to inspect the farm on August 3d, in company with fifty Scotch farmers, who had come from Berwickshire, 65 miles away.

We were first led to the pasture experiments, which are located on a tract of level land, the soil being a heavy clay or clay loam, weathered from a boulder clay several feet in thickness and lying upon sandstone. The land had been in cultivation until about forty years ago, since when it has lain in pasture. That it was considered poor land is shown by the fact that before 1897 its annual rental value was only about 75 cents an acre.

The method of conducting the experiments has been to divide the land into small fields of from three to ten acres each, to treat each field continuously with the same fertilizing materials, and to pasture the land with sheep alone in the smaller fields, or with sheep and cattle in the larger ones, and determine the increase in live weight due to the different kinds of treatments.

Part of the land pastured only with sheep has received no treatment of any kind; part has received phosphorus, either in the form of basic slag or superphosphate (acid phosphate), and part has received nitrogenous fertilizers, either in the form of sulphate of ammonia or nitrate of soda, or of oil cakes fed to the sheep.

The outcome has been that where no treatment was given, the herbage has been of the poorer grasses with about four per cent of clover. Where basic slag has been used, the total herbage has been two or three times as great as on the untreated land, and the percentage of clover has been increased to thirty, thus improving the quality as well as the quantity of the pasturage, so that its value, as measured by the increase in the live weight of the sheep, has been multiplied by 3 or 4.



This picture of Dr. Thorne was taken at his desk, shortly before he resigned his position as head of the Ohio Experiment Station at Wooster

Of the phosphates, basic slag has been much more effective than superphosphate used alone, but when the land has been limed there is practically no difference in the effect. The phosphorus in basic slag, however, has been much cheaper in England than that in superphosphate, because the basic slag is a home product, whereas the materials for superphosphate are imported; consequently the net gain from the use of slag has been twice as great as that from the superphosphate and lime, the slag having apparently carried sufficient lime to neutralize the acidity of this soil, when used at the rate of 560 to 1120 pounds per acre every third season, as it has been in these experiments.

This difference in cost would not have held good in America, where until recently basic slag has been chiefly imported from Europe, and where the price has always been based upon that of acid phosphate, without regard to original cost. Neither would the comparison hold good on more acid soils.

Lime alone, like phosphorus alone, has produced a comparatively meager effect at Cockle Park, an outcome that has been observed elsewhere on soils quite urgently in need of lime. Bone is built upon a foundation of both lime and phosphorus, and both must be returned to land that has been exhausted of bone material by long continued pasturage, before either can have its full effect.

The nitrogenous fertilizers have in every case reduced the net gain, both because of the added cost and because they have encouraged the growth of the grasses at the expense of the clovers, thus reducing the value of the herbage.

Even the feeding of oil cake on the land has reduced the net profit, for gain in live weight produced by the oil cake has been but little greater than that produced by the richer grazing due to the growth of clover induced by the basic slag, while the cost of the oil cake has been much greater than that of the slag.

While, however, the adding of nitrogen in oil cake or other nitrogenous fertilizers has been unprofitable, the combination of basic slag with farmyard manure has been profitable because of the lower cost of the manure.

The change in the character of the herbage between the untreated land and that receiving basic slag was really marvelous; from a thin, short growth of inferior grasses alone on the untreated land, to a dense carpet of grass and white clover wherever the slag had been applied.

THE standard application of basic slag has been 560 pounds per acre of a slag containing about 18 per cent of phosphoric acid, given every third season; but a larger gain has resulted from doubling the dressing at the outset and repeating it less often. Probably this larger dressing has more thoroughly neutralized the soil acidity, thus favoring a more effective action of the phosphate, which does not waste from the land as do nitrogenous fertilizers.

On the heavy, boulder-clay soil which covers the larger part of this farm, the addition of potash to the phosphates has not proved profitable; but on part of the farm the soil has been derived directly from the sandstones instead of from the drift, and here potash has increased the net gain. Potash, however, is not carried away from the soil by pasturage to the extent that it is in grain crops that are removed from the land, as the larger part of the potash consumed by the grazing animal is returned to the land in the droppings.

The native grass here is a redtop or bent grass, a species of Agrostis, which Professor Gilchrist characterizes as their "worst weed." It has the same habit which characterizes it in America—of growing on lands that are too acid or too wet for the better grasses. When, however, the acid is neutralized by lime, and the loss of phosphorus is made good, the white clover crowds out the redtop, the soil is loosened by the clover roots, and its drainage is improved, so that, under the light rainfall of this region, underdrainage seems to be but little improvement to the permanent pastures.

The ten-acre plots are pastured by both cattle and sheep, with the result that a considerably larger net gain is produced than where sheep alone are used, because the sheep eat the undergrowth of herbage, leaving the taller growth, while the cattle will consume this growth, thus feeding the whole off more evenly. Moreover, Professor Gilchrist believes the compacting of the sod by the trampling of the heavier cattle to be an important factor in the making of a good sod; but h[illegible] climatic conditions must be co[illegible] and discretion exercised, for [illegible] seen Ohio pastures ruined b[illegible] ting heavy cattle to run o[illegible] when the frost was leaving th[illegible] deeply frozen ground in early spring; but at Cockle Park the ground does not freeze half as deep as in Ohio.

ANOTHER field on this farm has been in permanent meadow since 1897, and, where neither manures nor fertilizers have been used, has given a twenty-three-year average yield of 2,156 pounds of hay per acre. Three hundred pounds of basic slag, applied annually, has increased the yield to 2,884 pounds; eight tons of farmyard manure, applied annually, has given 4,424 pounds of hay, and the same dressing of manure, applied in alternate years—this giving half the total quantity—has given 3,584 pounds of hay. The reinforcement of the manure with a complete chemical fertilizer has increased the yield, but not sufficiently to pay the cost of the fertilizer, and the same outcome has followed the addition of carriers of nitrogen or potash, or both, to the slag.

In some parts of England the small thistle with a running root stock, known in America as the [CONTINUED ON PAGE 21]

How the British Farmer Gets Rid of Canada Thistle and Bent Grass

IN THIS article Dr. Thorne mentions two pasture weeds that are troublesome to English farmers, and which also are a nuisance in many parts of America. When I came across the reference to the Canada thistle it brought back memories of many a summer's day, when it was too wet to work the crops, that I sweated and stewed in my effort to grub out this trouble maker in the blue-grass and alfalfa fields at home. The other weed which he mentions is redtop or, as is sometimes called, bent grass. The methods which the British farmer used to control these pests are things that you can use on your farm if you are bothered with these weeds.

In eradicating the Canada thistle the method is simple. When the plants are not more than from four to six inches high, they are cut, and this operation is repeated about three weeks later. When the cutting is delayed until August, the thistles will have matured their root stocks, and it will be too late to do any good. Cutting with the mower is almost as effective as with a hoe, and two seasons' treatment will almost completely eliminate the thistle.

In England, as here, the redtop or bent grass thrives on land too acid or too wet for better grasses. When, however, the acid is neutralized by lime, and the deficiency of phosphorus made up, the white clover crowds out the redtop, the soil is loosened up by the clover roots, and its drainage improved. T. W. Y.

Plugging for That Lily-Pad Pirate—the Plucky Pike

By Warren H. Miller

Former Editor of "Field and Stream"

"GOSH, man! This is almost exciting!" gasped Barnard, the bass veteran, as his pork minnow soared into the bur grass. Ripples shot toward it, other smaller ones whisked away to deeper waters. Barnard struck, as a pike like a tiger pounced on the pork, and the water foamed under his squirming, lashing belly. The reel cranked him through the bur grass, sliding him along like a sleigh. He had no grip on the water at all, Barnard skidded him boatward so fast, and before that finny pirate knew what he was about my friend was kneeling on him and beating out his brains with an oarlock.

We caught forty, and kept these two—a yard long each. Some sport!

My own lure was meanwhile coming in peacefully. Just outsidetheburgrass it stopped. From nowhere in particular he had come, and there he lay, a long, green shape in the clear water, my pork rind held fast in his mouth like a cat with a mouse. I stopped reeling and held my breath. One twitch, and he'd drop it; leave him alone, and he'd drop it anyway! But he had a better idea than that. A sudden gulp—and there was no white rind showing down there in the water! Then I struck, and the short bait-casting rod bent to the limit and stayed there. He was bound for deep water, and, believe me, when a four-pound pike has plenty of water he can put up some fight! I braked the reel with my left forefinger and let him go, fighting for every yard. He turned and came back, bent on biting off my nose. Under the boat for the bur grass he headed, and Barnard at the oars swung the ship, and my rod tip passed across the stern. Up went the rod, bending full strength, until I judged that it and the twelve-pound line had about reached the breaking point. It turned him, slowly, and he sounded for deep water again. It was all fast and furious action, done in far less time than it takes to tell it, but by the next circle he was ready for the net—out of which he wriggled like a black-snake, and it was to do all over again. Then he leaped for the surface—fatal mistake! for the spinning reel fairly shot him to the boat, where Barnard and I hustled him aboard.

ALL this in little old Roat Pond, after we had plugged all day for bass, and then rowed over to the east shore, in the afternoon, to see what lived in the beds of bur grass that fringed its shallow front. We were using weedless pork-rind minnows, hung in a red large fly, called the Bing or Shannon, depending upon who made it. In front of the fly went a bright spoon on a split ring, and two swivels. It's a good bait; and if the hook is made weedless, with a wire prong protecting its bend, you can hurl it through bur grass and ragweed as thick as wheat without snagging.

The pike is popular because he is found nearly everywhere. His unfortunate habit of surface fighting in shallow water makes him a poor antagonist compared to a bass, but in any depth of water he's right there. And there are ten of him, or his cousin the pickerel, to every bass, in most lakes.

I recall a scrumptious afternoon when Frank Stick and I fished the flats at the head of Sherburne Lake in Glacier Park. The pike there are of the Great Northern variety (they don't belong to the railroad, but to science) and they had never seen a pork minnow before in their young lives. Every single cast started a riot in those waters. The pike lay, like great green jackstraws, all over the flat, and when your lure hit the water it was a free-for-all race to see who would get to it first—and the loser would generally bite a sample out of the other fellow by way of consolation. Such a blithering piker's paradise! We caught forty, and kept two—a yard long each!

Cap Kidd's small brother, the pickerel, can give you plenty of fun, too, and poor is the pond which has not a few of them. The best tackle that I have found is a light trout rod and a No. 1 Buell spoon, attached to the line by a yard of gut leader. This tackle is full of guile, for the leader, being invisible, severs all connection between the lure and the line.

The pickerel has less brains than a hen, so, instead of chucking a brute of a plug at him, attached to an obvious white line, you fool him with a little finesse. Working the canoe along shore about thirty feet off, you ply the rod in switch casts, with about twenty feet of line out. Starting with the thing flicked out on the water on the off-shore side, you switch it overhead and land the spoon close inshore. With artful jiggles of the rod tip, you tease the lure out until the limit for casting is reached, when you snitch it off-shore again and make a fresh cast.

THE upshot of the business is that that spoon will wallow slowly under water, with no visible connection between you and it. It looks like a minnow or a small sunfish in distress, turning belly up, and presently a pickerel lying in wait somewhere gets excited and lams it for the count. In Lower Saranac my wife and I caught our breakfast every evening that way, in a single turn around our island. The fish that loved that spoon were either small bass or pickerel running up to about two and one-half pounds. Two of them for breakfast were plenty for a pair of pork-gobbling backwoodsmen like us.

Almost any stretch of water with a reasonable sprinkling of ragweed, pickerel grass, arrow-leaved lilies, cat tails, or pond lilies along its borders will yield pickerel. A white rooster's feather tied on a No. 6 snelled hook, a bit of skittering pork cut in the shape of a V, any of the treble-hook spoons, single or double, so that they be small, will answer; and, with a light fly rod to even things up, one enjoys himself hugely with these small, snaky pirates. A landing net is mighty essential, for it is seldom that the hook is really caught in that bony shovel of a mouth looking like a green trowel, and as you boat him he beats against the gunwale and is off—just as you are about to ring the skies with your triumphant, "I've got h—!" Yes—to get!

About the most ancient method of taking pike and pickerel is with the long cane pole, fifteen feet of strong fish line tied thereto, and a frog, a minnow, or a lure of some kind on the end of it. This has the merit of being economical and taking fish—but, really, you are depriving yourself of nearly all the fun of the thing! Even a two-dollar trout rod will give you two hundred dollars' worth more sport. The same applies to the bait-casting rod. Either can be as cheap or as elaborate as you please. I did all my bait-casting for the first two years with a $1.50 bait-casting rod, five feet six inches long, two-joint; a $2 quadruple-multiplying reel; and a 75-cent spool of No. 5 braided silk line, twelve pounds' breaking strength, and had as much fun as I have since with much finer tackle. I wore out the reel at last, and got another costing $3.50, which I have used ever since, and cannot see that the $25 jeweled beauty of my friend is a whit better.

Your bait-casting rod will have an agate tip guide, and another agate one in front of the reel, which is economical in that it saves wear on your line. The reel should be spool-shaped, wide, and small-diametered, not narrow and large-cheeked, which is hard to "thumb." So long as it has this shape, and is reasonably well geared, it is the thing. It ought to spin twenty-six seconds with a single whirl of the thumb. Do not get too heavy a line. It is not only not fair to the fish, but is also hard to cast accurately.

I met an alleged angler once, casting for bass, who would point the rod tip at his victim as soon as hooked, and reel him in, willy-nilly, with a twenty-four-pound muscallonge line. What chance has even a three-pound bass against such brute tactics as that?

For your trout rod, the same "just enough" rule holds. Unless you are going in for tournament casting, a nine-foot five-ounce rod of split bamboo, costing from $2 to $5, is plenty. The reel is a cheap, one-dollar, single-click affair, merely to hold your line. For pickerel any strong fish line will do, for you do not cast the line at all in the switch cast. Having got out about twenty feet, including lure and leader, you have out all you can manage, and it is cast back and forth across the boat without ever altering the length of line. I will start anyone out pickerel fishing with three dollars' worth of tackle and guarantee him all the fun there is in the game.

You can imagine the tussle this fisherman had with this 12¾-pound wall-eyed pike, yet you will find anglers who turn up their noses at your pike with scorn. But if it's sport you're after, a deep-water pike can show you just about as good a time as his more popular cousin, the bass. And if the bass aren't biting—well, there's no use letting that spoil the whole day

At certain times in the year, particularly the early spring season or late in the fall, bait fishing will give the best results. The bait-casting rod is plenty good enough for this. Put on your frog or minnow from the pail, and turn him loose in deep water, with the click off the reel and everything free and loose. The minnow swims about, or the frog, if hooked in one corner of the lower jaw, will keep paddling to try and right himself, and in either case attracts the attention of some pikey pirate, swimming about seeking whom he may devour. He grabs the hapless lure, and your line begins to slowly run out. It may go forty feet before he stops to swallow the bait, but when he does—and not until then—you strike, and look out for trouble!

IN THE doldrums of mid-July to late August, the water is too hot for the wolves of the lily pads to stay in their accustomed lairs along shore, and they seek the deep water, in those immense beds of pickerel weed that fill the bottom like a miniature forest. Trolling over these beds then gives the best results. I confess that this exercise is too monotonous to attract me. I'd rather snooze around camp and sally forth about sunset, to try my luck along shore.

But for those restless souls whose time is being wasted when not fishing, to get a boat and troll with seventy-five to a hundred feet of line out and a large spoon spinning at the end of it is an easement of their minds. The regular trolling rod is short and stout, and takes little part in the play of the fish, the line and reel doing all the work. The standard bait-casting rod is just as good, and puts more sport into the matter.

But of lures a paragraph is well in order. Plugs of all kinds are good for both pike and pickerel. It is an ambitious fish, and will attempt to swallow a neighbor a good deal bigger than himself with the most admirable persistence. Hence a lure half his own size is nothing to a pickerel's enterprise. Treble hooks are essential because his jaw is so flat and bony that no single hook will hold, and even a side-bent one is more apt to scratch and tear than to sink in and hold. All the Esoxes strike their prey from behind. Therefore a tail hook of some sort is the one on which he is generally found. If small pike are about, and you are fishing for bass, it is well to hang a treble hook in the shank of your bass hook and sink one prong through the side of the pork minnow so it will stay put.

I HAVE had excellent success with spoons of all kinds. It is an easy bait to pack, if carried in a leather pouch that will not let the barbs come through and fasten themselves in your socks, and it is always ready for immediate use.

You will meet anglers who turn up their noses at your pike with snorts of scorn. Let them. What do we go a-fishing for, anyway? Is it not to camp in the green woods, forget work, and steep our souls in the glories of Nature, when she stages the pageants of her sunsets over placid waters, or shrouds her bosom in the misty opalescence of sunrise? For the peace and beauty which is good for the soul, we go, and if we cannot get bass let us enjoy ourselves with pike and pickerel!

The Land of the Free?

"THE Manchester Guardian," a famous English publication, says that in Great Britain every man has the right to do as he pleases, so long as he does not encroach on the rights of others; but that in America every man is free to do only what everybody else does.

I have observed that when an American does not care for baseball, and does care for singing hymns, he at once joins a crusade to prohibit ball games on Sunday, and to fine everyone who does not sing hymns.

ED HOWE.

Growing, Grading, and Selling 'Em Right Makes My Apple Business Pay

By George T. Groh, Jr.

Who lives near Wathena, Kansas, and is one of the most successful orchardists in the Missouri Valley

NOTE: When we asked the Kansas Agricultural College people who would be a good Kansas fruit farmer to visit, they nearly all said: "You ought to see Groh at Wathena. There are plenty of good orchardists in Kansas, but he is typical of the best, and, furthermore, he is right in the heart of the Missouri Valley fruit district."

So we dropped off the bus at Groh's orchard one day, and found that everything they had said about him at the college was true, and then some. We liked the looks of his place so much that we asked him to tell us how he made such a success of his orchard, so FARM AND FIRESIDE folks could read about it. And here it is.

At agricultural college we once had a forgework instructor who liked to tell us in his droll way that all there was to blacksmithing was to "heat it right, hold it right, and hit it right." But just as most of us failed to master the art of blacksmithing, so a lot of people are going through life and failing because of some one thing that is wrong.

When it comes to fruit-growing, it seems as though all there is to do is to "grow it right, grade it right, and then sell it right." Have you mastered all there is to know in raising fruit? Are you getting the most out of your orchard? If not, maybe there is something in Groh's story that will give you a tip as to what is wrong. THE EDITOR.

WHEN anyone asks me what is the keynote of successful orcharding, I say it is, principally, efficient marketing. There are many other factors of almost equal importance, but the knack of *keeping your product on the market* is the thing that will build your success.

By that I don't mean that you can put an inferior fruit on the market, and by tricky selling make a neglected orchard pay. What I want to convey is that, unless you have the right kind of a sales campaign, you won't make a fair profit even though you grow superior fruit.

I have always been able to get the highest prices for my apples, mainly because I use such care in grading and packing that I am able to guarantee every barrel. That it pays to take this care is shown by the prices I get compared to other orchardists, who, though they raise apples as good as mine, do not grade them, and therefore must sell at lower rates. Fruit grows well in this fertile Missouri Valley; but while we and others are making money, many are becoming discouraged, and are selling out or cutting down their trees because they don't understand apple culture or don't have the right marketing system.

Before you can get the right market you must turn out a quality product. Quality is what the consumer wants. He is willing to pay a premium to get it. Folks who buy fruit at the grocery may quibble about the price at first, but nine times out of ten they finally select the well-graded, nicely packed fruit in preference to the nondescript.

ONCE you learn to grow quality fruit—or any other farm product, for that matter—sell it on a quality basis. It's worth more, and you can get the price if you only use good salesmanship. Standardize your product so that it will earn a reputation on that point in the market centers where it can command recognition.

To grow the right kind of fruit and to get the right market, there are two things an orchardist absolutely must have. They are training and capital. I was fortunate enough to have the latter, as Father left us this farm; but the training I had to pick up through experience and hard knocks. I didn't have the advantage of a college education, but I want my boys to receive the benefit of one. I believe a good foundation of both theoretical and practical work, got through a good horticultural course, should be had by every fruit man who can get it.

An orchard involves quite an investment, and it takes time to get results, so it's easy to see where capital is needed. When the trees do get to bearing, it's great; but you had better have something else to fall back on while waiting for the fruit crop to materialize.

Orcharding is getting to be a more scientific business every day, just like all other branches of farming, but it requires greater technical knowledge and closer attention than grain or livestock farming. You can't just plant your trees, let them grow up, and then harvest your crop. It takes continual watching, or something may go wrong that will either set you back or ruin your entire orchard. Then, when you do get your trees to bearing good fruit, half of your problem remains to be solved—that of getting your fruit on the market.

And, in conclusion, let me repeat: Make a quality product, standardize it, and then sell it on a quality basis. Quality always commands a premium, and nowhere is this truer than in orcharding. Grade carefully, even though you have but a few barrels of apples to sell. It will pay. After a few years of careful grading and standardizing you will become known, and you will have no trouble finding buyers who are willing to make your trouble well worth your while.

Advertising counts just as much in the farming game as in any other business. It's up to the farmer to let the buyer know what kind of a product he has to sell. In every barrel of my apples I put leaflets telling about my product. This is an inexpensive and effective way to get publicity. The man who opens a barrel of apples from my orchard is first impressed by the quality and uniformity of the fruit. He finds the leaflet and reads it, and it helps him remember me and my apples. Perhaps he orders from me direct the next time, for *he knows my apples* and probably doesn't know any other grower's. Try this out for yourself and watch it bring results.

Picking, packing, and grading require a lot of extra labor, but usually I have little trouble getting it. Pickers will work at reasonable wages, but good graders are scarce and demand higher pay. It is expensive, but it pays in the end, and is absolutely necessary when you are working for a quality product. It is only by employing the most skillful graders, and by exercising the greatest care in packing, that I am able to guarantee my apples and thus top the market with them. Five years running without a single complaint shows that we have been successful in this. Now and then a wormy apple will get by, but slips like this are reduced to a minimum.

The apples I grow are highly colored and of good flavor, comparing, I think, very favorably with the best in the land. Every barrel I ship bears my brand, and in addition has a slip on the inside with my trade mark, name, and address. I also distribute a little booklet which gives a brief history of the apple, and tells why more should be eaten. It includes several practical recipes for cooking apples, and in a prominent place I give the following ten reasons why apples should be bought by everybody:

Its advantages as a staple diet are many.

It is easily prepared.

Its keeping qualities are wonderful.

It is a food, tonic, condiment, and cosmetic all in one.

It is an excellent substitute for higher priced foods.

No part of it is wasted.

It is a friend to health and a foe to disease.

Its food properties are as great as those of meat.

The phosphorus in it renews the nerve forces.

And, best of all, the Groh orchard produces the apple "with the taste."

The Kind of Apple Eve Gave Adam

IN EVERY barrel of Groh's apples is a printed slip bearing his name and address and this little story:

"When Eve gave Adam the apple in the Garden of Eden, she gave him an apple much unlike the ones you find in this barrel. It was little, hard, and sour and there is little wonder at the consequences that followed. The wild crab, supposed to be the kind of apple with which Father Adam was tempted, lacked, as a fruit, the excellence of the apples you will find in this barrel. In these you have all of the concentrated excellence of centuries, the product of the evolution brought about by man, and the painstaking efforts of modern orchard husbandry. You have here the one fruit of all nature possessing a combination of refreshing and bracing acids, substantial bulk, and stimulating juice, which give just that degree of comfort to man's physical organism which is required for complete enjoyment."

Also in the barrel is a book of apple recipes.

That is good advertising, and it goes well with good apples.

THE EDITOR.

OUR farm lies entirely in the rich loam of the Missouri Valley, and is about five miles west of St. Joseph, Missouri. This silt loam is so rich that we do not need to fertilize nor to cultivate our trees. In fact, we don't dare to, for it causes the trees to go to growth, and the fruit suffers. We have to fight growth all the time as it is. This isn't due to sub-irrigation, as one might suppose, for we have to bore 24 to 50 feet to strike water. All our trees are a quarter of a mile from the river.

The San José scale has done more to put this region to the front in orcharding than any other one thing, for it has made it necessary to spray and continually fight for the life of the trees. This has taught the growers the importance of proper spraying, and the orchards that were saved from the ravages of the scale are now defended from insects and other diseases that are just as detrimental. It taught us to study the needs of our trees, and they have repaid us well for our trouble.

Father started our orchard more than twenty years ago. He planted about 20 acres in Ganos and a few Jonathans. Practically every one of these trees was saved from the scale, canker, and other tree troubles, and it is the old orchard that is making our money for us now. The best crop we ever had was in 1917, when we sold 3,000 barrels, not counting seconds and windfalls, our apples bringing from $4.50 to $6.50 a barrel.

BESIDES the old orchard, we have 16 acres of new trees which I set out in 1914. I put out about an equal number of four different varieties, including Stamen Winesaps, planted with Delicious, and Jonathans planted with Winesaps, there being four rows of each variety together. This mixed planting gives better pollination, and makes for a bigger crop. We expect great things from the young trees, which will begin to bear soon, as the varieties are better, and we should get a better price for the fruit.

One of my pet beliefs is keeping trees in good shape—open-headed and low, so that they can be easily sprayed and pruned. It is easier to gather the fruit, too. I have cut some diseased or misshapen trees back so that everybody, including experts from the horticultural department of the Kansas Agricultural College, predicted that they would surely die.

True, I have lost a few trees in this way, but usually I am able to save them and make them over into good-shaped trees. I superintend this pruning very closely, and the particular jobs I always do myself. The boys are learning, also, and Willie, the oldest, wields a saw and a pruning knife with good effect on the lower branches. Every wound is protected with tree paint. This is very important, as otherwise disease or rot may start, and possibly ruin the tree. It doesn't pay to take chances with a valuable tree that requires years to grow into bearing size.

I start spraying with a power sprayer as soon as the buds [CONTINUED ON PAGE 24]

Picture by courtesy of the States Relations Department

These three boys are Jack Turner and Gilbert Weiling of Hillsboro County, Texas, and Albert Debnam of Dawson County, who composed the Texas livestock judging team which won first honors at the International Boys' Club Fair at Atlanta last October, and who are now in England enjoying the Royal Livestock Show as a reward of their victory. Boy teams at the competition represented nearly every State in the Union

Artists Who Weep and Rage Over Woes of Making Phonograph Records

By Lawton Mackall

MUSIC is a lot trickier to can than peaches or pears.

When you play one of your phonograph records you have no idea how hard it may have been to get that melody "preserved." You are listening to the result of a lot of mighty hard work, which may have included considerable storming by the director and tears on the part of the artists. Some artists simply cannot sing for the records, at all, while others are nervous wrecks for days after a session of recording.

To sing into a recording horn may look easy—just as it may look easy for a baseball player to hit a ball over the fence for a home run—but in reality it is one of the most difficult, nerve-racking things anyone can attempt.

On the concert stage a singer with a good voice may make little mistakes without the audience noticing them. If he has an attractive presence and an engaging manner, he may even sing a bit off-key and yet make a hit. But the wax master record is a relentless mirror, with no mercy for the imperfections that the average artist—like other human beings—is guilty of. The slightest waver or strain in the voice, the slightest deviation from the true pitch, comes out baldly. And the very fear of making these mistakes and flaws "hoodoos" most singers into making them.

The result is that many a popular stage artist has met defeat in the laboratory. I know a famous tenor who created a sensation with a grand opera company, but whose test records, made shortly after this triumph, were a dismal failure. There is a comédienne who has for years been a favorite in vaudeville and operetta, who met her musical Waterloo in the same way. A phonograph company offered her a large sum of money on condition that she sing for them exclusively. She was overjoyed. But—fourteen times did she try her first song, and each time she failed, although if she had been in front of a living audience she would have won hearty applause. The poor girl was almost in hysterics with anxiety and disappointment.

"Are you going to let yourself be licked by a little tin horn?" said the director to brace her up. She gathered all her grit and replied: "I'll try just once more."

It turned out better. In fact, it was the best she could do. He congratulated her, and she went home—almost in a state of collapse. But even that record was adjudged below standard. It has never been issued, and never will be. And recently she had the same disheartening experience with another company.

THESE are not unusual cases. Operatic stars with many successful records to their credit may have arduous struggles with new selections. When Claudia Muzio attempted her first offering in English, she was so nervous that, after a preliminary trial, she whispered to the director: "Please to request the stranger [yours truly] to go out of the room." She did not think she could stand having anyone watch her. And yet this delightful prima donna was in the habit of facing the vast and critical audiences of the Metropolitan Opera House!

When Lucien Muratore, who had distinguished himself for bravery while serving in the French army, grappled with the "Star-Spangled Banner" in "Eengleesh," his fortitude nearly failed him, and the atmosphere in that place got harrowingly tense.

Stracciari, the great baritone—a big, strapping he-man,—once became so unnerved by the ordeal that he burst into tears. But he kept at it until he conquered, and to-day Stracciari is keener about his phonograph work than about his stage successes.

It was interesting to me to watch Giulio Crimi, the Metropolitan Opera tenor, who specializes in vocal fire and abandon, quietly "grooming" his voice and nerves in preparation. While the orchestra was trying over the accompaniment, he asked for a cup of tea (it was in the middle of the morning), took off his collar, rolled in the neck of his shirt, and disappeared into another room, whence he could be heard "warming up" with vocal exercises and snatches of song. Fifteen minutes later he emerged fit for the fray, took a few last sips of tea, and sang into the horn like a hero.

No use gritting your teeth and clenching your hands and going at the thing fiercely; you must be cool and calm, and sing as though you hadn't a care in the world. To do this after a dozen unsuccessful tries, and when you feel like springing forward and biting a piece out of that hard-hearted horn, is indeed an achievement. The worst blunder of all is to lose your temper. Some singers, upon hearing their first test record, exclaim indignantly: "What! You call that screechy, wobbly thing my voice? Nonsense! That's not me. Your machine's all wrong!"

The director can only tactfully urge them to cool down and learn the game; but if they happen to be particularly conceited they are apt to walk off then and there.

Even instrumentalists have their problems to overcome. Cecil Burleigh, the violinist, in making some tests with one of the companies, found that his violin, for which he had paid several thousand dollars, —a fine old Italian one, selected for him by the celebrated teacher Leopold Auer,—was useless for recording. Its tone as reproduced was weak and thin. For some mysterious reason it wouldn't "gee" acoustically. He experimented with fiddle after fiddle, at last finding that a cheap one, whose tone was far from remarkable, sounded, when reproduced, surprisingly rich and mellow.

The average violinist has to use in the laboratory not only a different fiddle from his ordinary one, but also a different manner of playing; for when performing on the concert platform most violinists sway slightly with the motion of their bowing, whereas recording necessitates that the instrument be held absolutely still in front of the horn. The slightest shift to one side or the other ruins the record. It is like making a foreigner who is in the habit of gesticulating when he speaks talk with his hands fast at his sides.

A recording laboratory is a curious place. It is an oblong room through one wall of which project the mouths of two horns —a small one for the singer and a large one for the accompanying orchestra. (What goes on in the little room behind is a dark secret.) The conductor sits on a high stool beside the horns, and the players sit and stand at carefully chosen distances so that their instruments will register with the correct degree of loudness—some huddled close up, others on high chairs far away. The violins used don't look like violins at all: they have no wooden figure-eight-shaped bodies, but are equipped with metal horns to increase their power. The trombone, on the other hand, being by nature a loud and lusty instrument, has to be relegated to a safe distance. Kettledrums are put outside in the hallway. Everything is for clarity and tone balance, and an inexperienced soloist can spoil the whole effect.

The principle that "time is money" operates here very forcefully, as the orchestra alone may be costing a dollar a minute —not to speak of the experts in the hidden room, keeping the precious wax at the correct temperature over all its surface ("cool spots" cause flaws) and regulating the mechanical mysteries. The prima donna who arrives half an hour late, and then indulges in temperamental arguments, wastes fifty dollars before she even gets down to work. It may take a whole day to do two selections.

Operatic celebrities, recording only a few times a year, can hardly be expected to hit the bull's-eye of perfection without a number of preliminary misses. No matter: what they achieve when they *do* hit makes the time and effort well spent. A masterpiece is worth any cost.

But popular music, being a thing of the moment and designed to be sold at a popular price, is recorded for the most part by "efficiency artists"—persons who have sung or played in front of the horn so many, many times that the knack of making records has become second nature to them. There's Billy Murray and Harry McClaskey and Ada Jones, and so on. Their names are household words.

PROBABLY the most remarkable of these popular experts is McClaskey, who has sung into the horn at least twice as often as any other human being. Under his own name and under the name "Henry Burr," and in combination with other singers, he has made thousands of records, copies of which have sold in millions upon millions. To-day they are being issued by no less than eight different companies, including one in Canada. It is his voice that is heard in all the Bubble Book records, and all the Talking Book records. He has attained such rapidity and precision that recently he completed sixteen successful recordings in a single day.

He is a marvel of dependability. Standing before the horn with absolute composure, he sings every note exactly on the pitch, enunciates every word distinctly, and controls his voice so accurately that it never gets loud enough to cause a buzz, nor soft enough to fail to register.

About sixteen years ago, deciding to utilize his recording skill on a larger scale, he organized the Peerless Quartet—first tenor, Albert Campbell; second tenor, "Henry Burr;" first bass, Steve Porter; second bass, Frank Stanley. At present the basses are John Meyers and Frank Croxton. Under his leadership this quartet has made hundreds of successful records. As sentimental songs and waltz songs sound a bit dreamier perhaps when sung without much bass quality, the two tenors of the organization, Campbell and "Burr," render a great many of them as duets. Others are given by a combination of these two men and Meyers, the first bass—this organization being called the Sterling Trio.

FOLKS who have enjoyed the records of the Sterling Trio and the Peerless Quartet, but who have never happened to look up the personnel of these organizations in the catalogues, may be surprised to learn that the trio is the upper three fourths of the quartet, and that "Henry Burr" is the leader of both.

McClaskey's accuracy is so proverbial that when he does make a slip the orchestra players are apt to take an unholy joy therein. You see, he is paid by the finished record, whereas they are paid by the hour, and they can afford to relish any little mishaps that break the earnestness of the occasion.

Once last summer he had to do a record over because just as he was reaching the last note a thunder clap occurred. But it was hardly his fault that the weather butted in!

No, making records isn't by any means so simple as it sounds; and after reading this you will listen to your favorites on your own machine with a new appreciation of the hard work they put in to get that record just right for your entertainment.

Lucien Muratore and his wife, Lina Cavalieri, are both figures of prominence in the operatic world. Muratore faced the Boche like a true Frenchman. But when he stared into the recording horn to sing the "Star Spangled Banner" his fortitude nearly failed him

Pictures by Bain

When Claudia Muzio, the lady you see here with her last Christmas' dolls, attempted to record her first offering in English, she became so distraught she whispered to the director: "Please to request the stranger [Mackall] to go out of the room." Yet, she calmly faces an audience at the Metropolitan Opera House

This picture of Harry McClaskey, alias Henry Burr, which was taken on the lawn of his home at Mt. Vernon, New York, isn't a very good sample of his daily life. It just shows the last part of it —when he comes home to rest. During his working day he sings for the phonograph people, composes popular songs, and manages the Henry Burr Company, music publishers, which he owns. Still he seems to gain weight

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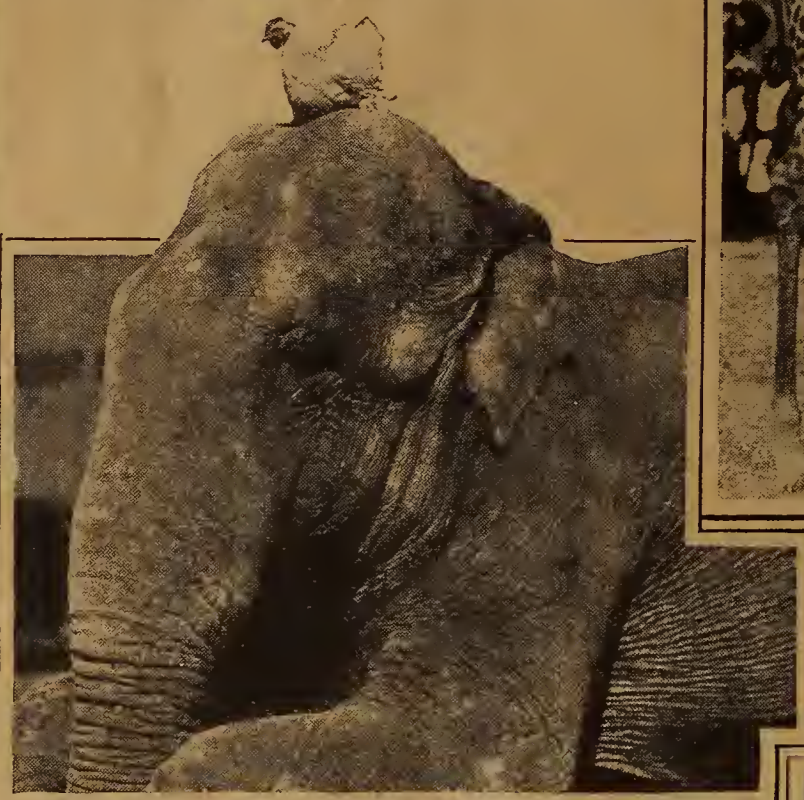
Nearly one third of the people of the United States, or more than thirty millions, live on farms. Nearly twenty million more live in communities having a population of less than 2,500. In other words, nearly one half of the population of this country is to be found on farms or in country districts.

John Daniel -and Others·

THIS is John Daniel, the gorilla that started out with the circus this season when it opened at Madison Square Garden. He couldn't stand civilization, though, and he died early in April. John Daniel was the only gorilla in captivity. Many gorillas have been captured, but none of them live long in captivity. John Daniel was five years old, weighed 200 pounds, and was worth $5,000, the price paid for him by the Ringlings to the London girl who owned him. Had he lived to maturity, or twenty-one years of age, he would have been eight feet tall, weighed 900 pounds, and been worth in the neighborhood of $1,000,000. In the short time John was with the circus he learned to sleep in a bed and drink out of a glass. When he became fatally ill with pneumonia, he crawled into bed and pulled the bed clothing up over his head, and would not stir. He died the day before his former mistress arrived to take care of him.

A GIRAFFE with a sore throat is almost in as bad a fix as a dachshund with the stomachache—both complaints have such a lot of territory to cover. The name of this long-legged gentleman with the mosaic hide is Shorty. Shorty is so tall that when he looks down at the ground he gets frightened at the thought that he might fall off. When Shorty or any of his kind gets riled, he turns loose and kicks. He can outkick the strongest mule, and could kick a horse to death with his front feet.

QUEEN, the elephant, has another lady visiting her on her head, and doesn't know it. From Biddy's present position and known habits, we should say that she might be preparing to leave one of her cards—a round, white card with no printing on it, but concerning the donor of which there can be no question. Biddy, too, acts in the circus, being first assistant to one of the clowns in his big hen-coop act.



THIS is Jules Turnour, the boss clown. That means a lot in the circus, as the boss clown is looked up to as the leader of all the performers. It is interesting to know that many of the circus clowns own corn-belt farms, where they live in the winter seasons, late fall and early spring.

THIS is Ziba the zebra. He is known among circus men as "the convict." Not that he is really a criminal, though he is something of an outlaw, being the hardest of all members of the equine family to break and train. Ziba doesn't know how he got his stripes, but he thinks that at the time colors were being added during the creation period one of the painters mistook him for a barber pole.

HERE are four circus babies—three with claws and one armed only with a smile. The one with the smile is Baby Wallace, and she wields that feminine weapon with more deadly effect than Leo, Kit, and Jesse will ever wield their claws. Reading from left to right, Baby Wallace's playmates are a lion, a tiger, and a leopard. Strange pets, you say. Yes, but Baby Wallace prefers them to the vest-pocket or ordinary house cat.

The Animal That Interests You Most When You Go to the Circus

By Ed P. Norwood

General press representative, Ringling Bros. and Barnum & Bailey Circus

I'VE been in the circus business for a good many years, and I've watched a good many hundreds of thousands of you folks (when maybe you didn't know you were being watched), to see what you like best in the show.

What do you suppose it is? Elephants, freaks, dogs, monkeys, giraffes, zebras, hippos, camels, lions, tigers?

Well, it isn't any of those. It's the horses.

Horses of all kinds, in all parts of the circus, attract more attention, get more applause, and are generally more popular than anything else about the show.

I don't know exactly why this is, but there is something about a trained and beautiful horse that carries a greater appeal to the human being than any other member of the brute kingdom. The horse, I suppose, comes nearer to our notion of what pleasing shape and contour in animal life should be. Then the horse is a worker, not a drone; he does something to earn his living, and we like that. Also, the horse is intelligent, and strong, and a proved helpmate and companion to man.

We carry more than 700 horses with our circus, including show, pony, ring, and baggage stock. And it may interest you readers of FARM AND FIRESIDE to know that very many of our finest horses came to us straight from the American farmers who owned them. I should say we get the majority of our fine horses in this way.

Another odd thing is that we don't go out and hunt these horses up, either. You farmers bring them to us. A man in the part of the country we happen to be playing will have a fine market horse, or an unusually beautiful team, and it is with a great deal of pride that he will bring them in to us and offer them for circus stock. He knows we take good care of our horses, and he considers it something of an honor for his horses to be considered worthy of being accepted among so many fine animals.

We carry automobiles, too. But you can't imagine a farmer bringing in his automobile to us that way, can you? There is just the point I am making about horses. There is some bond between man and the horse that gives him a different feeling toward horses than he experiences toward any other animal or thing in the world.

FOR my part, I like the circus horses that you never see in the ring—the heavy, plodding, handsome old work horses. All showmen do. There's nothing fancy about the work horse, but he's the most faithful, reliable, and indispensable of all the horses in the show. You don't see much of him. He stands in the shadows outside while you are enjoying the evening performance, and when it's over he's the boy that hauls the show off the lot and puts it on the trains. That morning he hauled it from the trains and put it on the lot for your special pleasure. He gets no applause, no pampering nor petting, and often he stands patiently in drenching rain or in the boiling sun, harnessed and ready to move instantly into his heavy work when the moment comes.

No horses could have better care than that received by our circus horses. We have to watch them and their daily feed and water, for, unlike your horses, ours are subject to frequent changes. Take water, for instance. Of course, we cannot govern the general character of this, but we *can*, and *do*, see that it is as pure and as clean as care can make it.

Our drivers are never supposed to water stock from public troughs—troughs in which every Tom, Dick, and Harry horse so to speak, has had his nose. No, sir! Our horses are provided with big portable containers. The trough part of this affair is of canvas. The canvas part is swung from an iron-pipe frame by lacings. Then the troughs are filled by means of a hose attached to a nearby hydrant. At night these containers are unfastened, spread out flat on the ground, and scrubbed.

Speaking of scrubbing, calls to mind the shampooing bees that take place on the lot each Sunday—sometimes oftener when time permits. The best grade of bar soap is used on tails, coats, and manes. Very often—on a Sunday afternoon—I have seen no less than twenty work horses with their tails done up in ribbons. That, of course, is a common thing with the ring stock or performing horses. It is necessary to give those "darlings" that attention. But in the case of the draft horse it's purely a matter of "love for his team" on the part of the driver.

Our horses are fed oats, bran, and hay, and plenty of it. Two rules govern when it comes to hay—we want the best obtainable, and it must under no circumstances be green. In order to avoid the chance of being obliged to accept green hay, we have men travel weeks in advance of the show. They make contracts with local feed men for the required kind of hay, and if the local man hasn't it he sends for it—often to considerable distances—stores it away, and then carts it to the lot when the circus comes to town.

Of course, in spite of all this care, we now and then have a sick horse. And when he's sick he goes straight to what we call the hospital tent. There he spends the daylight hours. At night he is transported in a special stock car set aside for this very purpose.

We carry two veterinarians with us. The chief, Tom Lynch, has been looking after circus horses for many years. He rarely loses a patient. He says sick horses are, nine times out of ten, merely *tired* horses. So he has them hustled off to the hospital tent for an out-and-out rest cure. It nearly always works.

While on the subject of special tents—the showman calls them "tops," by the way—the blacksmith shop should come in for a word. It is here that the smiths, the horseshoers, and the harness menders hold forth. A force of nine men are kept busy six days out of every week. This shop is not unlike any one in your town, except that it includes a bench for the leather workers. There are two forges, and horses are shod as the occasion requires. Broken wagon wheels, poles, etc., are likewise repaired in this shop.

So, as you must have concluded, the circus horses get a world of attention. It is because of this that "the wonderful circus horses" has become a household phrase. In passing, it is interesting to note that these "wonderful horses" are just your horses—some from farms in your very locality, perhaps—who are kept fit, sleek, and contented by constant and tireless care.

The second most interesting animal to you at the circus is the monkey. And that's a funny thing. You know if you featured the monkeys on the billboard posters you wouldn't attract many people to the circus. Instead, we have to advertise a mammoth picture of the armored rhinoceros (which is the most valuable animal in the show, being appraised at $12,000) and the elephants, giraffes, and lions. But once get a crowd of people into the menagerie, and ninety-nine out of every hundred of them will make straight for the monkey cage, and they'll spend more time there than around any of the animals in this department. The monkey is an actor. He gives you something for your money. He registers every human emotion. He thrives on affection and attention, and cannot bear neglect. Isn't that human? A monkey is fascinating because it *is* so much like a human being. But a monkey is not lovable, as is a horse, because—well, even while we're fascinated we sort of unconsciously resent the thought that maybe we're more closely related to the monkey than we think it's flattering to be.

WITHOUT the slightest doubt, the most dangerous animal in the circus is the tiger. You hear this question discussed a great deal, and often doubt is cast upon the hazardous character of the tiger tamer's business. Ignorant persons often say that the tigers are old and harmless. This is most certainly not true. The man who walks into the cageful of tigers, and makes them perform, literally takes his life in his hands every time he does it.

There is just one definite sign in the actions of a tiger that warns his keeper that he had better close the act and get out of that cage as quickly as possible. Growling, snarling, lashing his tail, pacing back and forth, curling his lip, and showing his teeth are not real danger signals. They *look* dangerous, and they make a good show for the audience, but they don't really mean much.

The really dangerous point is reached when you see a tiger lift a front paw and begin to make passes with it in the keeper's direction. Then look out!

But there are degrees even in this danger. The trainer carries a whip, a prod, a blank-cartridge revolver, and a loaded revolver. Ordinarily he can control the tigers with the snap of his whip and his threatening prod. Tigers are none too pleasant customers to deal with under the best of circumstances.

When one of them shows signs of getting excited (and you must remember that it is *fear*, occasioned by *surprise*, that makes a wild animal vicious and dangerous, and not any inherent desire to be mean), the firing of a blank cartridge in his face usually will stun and quiet him.

IF THAT doesn't work, the trainer has only one chance left to escape alive. He must draw his loaded revolver and shoot the tiger. At the sight and smell of blood, all the other tigers will pounce upon the wounded tiger and finish him. Tigers have no use for weak or wounded brethren. And it doesn't take them long to kill him—only a moment. It is in that moment that the trainer must escape from the cage if he is going to get out alive. Otherwise he hasn't a chance. And that is the truth about tigers. Remember it when you see them perform next time, and don't kid yourself that you are witnessing any safe and tame exhibition.

Another mighty interesting animal to us all is the elephant. We carry forty-two of the big fellows with us. They have more brains than any other wild animal we know anything about. They are very human in some respects—have their loves and their hates joys, sorrows, trials, tribulations, triumphs, and disappointments just like we do.

I noticed just the other day that a reporter, curious to know what President Harding said to Ex-President Wilson when they met and chatted, quite by chance, for a few moments not long ago, learned that President Harding was telling Mr. Wilson about an old elephant in India, where the President has a relative who is a missionary. This old elephant [CONTINUED ON PAGE 27]

THE HIGHEST PAID PERFORMER

THIS is Miss Lilly Leitzel, the highest paid performer in the circus. She is an aerial gymnast, performing on a single rope, without a bar, and with no net underneath, high up near the roof of the big tent. Miss Leitzel has no permanent home, except the circus. In the winter she performs at a theater, either in New York or London.

It is not generally known, but Miss Leitzel and the other girls in the circus have two sets of clothes. The second-best is used on rainy days, when it is muddy and unpleasant underfoot around the rings. The matron is known to all the girls as "Ma," and there is much feminine wailing when ma decides that the weather is too bad for the girls to wear their best that day. Most of the girls dress in the general dressing-room, but the stars, like Miss Leitzel, each have a special dressing-room and a maid

This Article Was Not Written for "Farmers"

"IF I write something about the circus for FARM AND FIRESIDE," said Norwood when we asked him about it, "I won't address it particularly to 'farmers,' because we have discovered that farmers are no different from other human beings.

"It used to be that you could spot a farmer as far as you could see him, but not any more. I remember one day, last summer, our circus chief of police (his name is John Brice, and he used to be chief of police at Ironton, Ohio, and still goes back there in the winter time) went up to a well-dressed, professional-looking man who had parked his car in the wrong place near the big tent. Brice berated him roundly, and wound up by saying:

"'An intelligent business man like you ought to know better than to park in a place like that, anyway.'

"'Excuse me,' said the man, 'but I'm a farmer about nine miles north of here, and I really didn't know I was parking in the wrong place.'

"Brice wasn't so wrong at that. The old-time 'hayseed' farmer is a character of the past. The farmer of to-day *is* a business man, as well as a human being; and it is as such that I want to write for him and for his family." THE EDITOR.

I Painted My Silo Before It Was Built

This may sound strange, but it saved me lots of time and money

By Clifford Farr

I HAD an idea that silo-painting was a difficult task, so when I put up my silo, six years ago, I hit upon the plan of painting it before it was put up. This may sound like a fairy story, but it worked out very successfully.

Two neighbors and I purchased panel silos in the summer of 1914. The three made a full car, and each of us stored our silo until we could get the foundations built. I bought wood preservative to put on the panels. It was in applying this that I conceived the idea of painting the silo before erecting it.

I had stored the panels in an empty haymow. The first rainy day I set my sixteen-year-old boy and the hired man to painting the silo. It took them about an hour to get started, but they soon made up for lost time once they got their system going. They used for a bench an old store box, six feet long and three feet high.

The boy put the panels on the bench and took them off while the hired man did the painting. They soon developed a great deal of speed. My son would open the crates, put the panels on one end of the box, and take them painted off the other end. He then stood them on end to dry along the side of the barn, the second layer being set out at the bottom about two inches, so each layer could dry uniformly.

I don't know how much of a job it is to paint a silo, but I do know how long it would take a first-class painter to do the job. The hired man and my son painted our 14 x 30-foot silo in just six hours per coat. They applied two coats in addition to the wood preservative, which I will leave out in my calculations. Several painters told me that it would take two good painters a day to put on each coat after the silo was erected. The greatest time is used in putting up scaffolding. In most instances where speed is desired, and on extremely high work, a swinging scaffold would be used.

NOW for the figures to prove that I made money. It would cost to-day two days' labor of two painters, or $28, not considering the paint. Now, what did it cost to paint it before it was erected? The hired man was getting $80 a month, and the boy $40 per month. At this rate the labor cost for painting the silo before it was put up was just $4, which makes a saving of $24. You may say that I could have painted the silo myself, even if it was up; but this would be impossible for me, and I believe for many other farmers. Very few farmers have ladders long enough to reach the top of a tall silo, and besides, it is practically impossible to paint a silo from a ladder. A swinging scaffold is not to be found on many farms, and very few farmers would care to use one. The great majority would pay the extra $24 rather than risk their lives on a swinging scaffold.

Another advantage I found was in trimming the silo. This advantage applies only to panel silos. I was able to have the ribs painted white, a distinctive style in silo-trimming. The average silo looks very bare and plain if painted a solid color. It is next to impossible to have it any other way unless it is painted before it is built. I believe that I had the most attractive silo in our community after it had been painted in this manner.

Though I am not an expert painter, I can offer a few hints that may prove helpful in doing outside painting. I found that the wood preservative acted in a double capacity. I purchased all the preservative my dealer had, which was only enough to cover about one third of the silo. I put these panels on the lower part of the silo. After six seasons I am satisfied that the preservative was a profitable investment. My only regret is that I could not buy enough to cover the entire surface. I can easily pick out the panels that were treated with preservative, as they are less in need of paint than the others.

The explanation is that in painting new wood it should first be primed. The pores are open, and absorb so much more of the oil than the color pigment that the color is left on the surface without enough oil to hold it. Consequently it soon wears off. Some painters take paint of the proper consistency, thinned with an equal amount of linseed oil, and apply it to new wood and allow it to dry well before putting on the first coat. With wood preservative the same results are obtained as with a primer, and the cost is less. Besides, there is the advantage of preserving the wood from the destructive action of the silage juices.

BRUSHES cost so much now that it pays to take care of them. When they are to be kept overnight I remove as much paint as possible by rubbing on an old board, then hang them in water. This is important, as the bristles are easy to get out of shape if simply placed in the water. It is not a wise plan to keep them in water more than a day or two. If brushes are to be kept for a long period of time, I clean them with turpentine or gasoline, then wash thoroughly with warm water and soap, and hang up to dry. If I am going to use them again in a week or two, I dip them in kerosene, painting this on an old board, then hang them in a pail of kerosene. Before I use them again I always remove the coal oil.

Blueberries

By Robert Frost

"YOU ought to have seen what I saw on my way
To the village, through Mortenson's pasture to-day:
Blueberries as big as the end of your thumb,
Real sky-blue, and heavy, and ready to drum
In the cavernous pail of the first one to come!
And all ripe together, not some of them green
And some of them ripe! You ought to have seen!"

"I don't know what part of the pasture you mean."

"You know where they cut off the woods—let me see—
It was two years ago—or no!—can it be
No longer than that?—and the following fall
The fire ran and burned it all up but the wall."

"Why, there hasn't been time for the bushes to grow.
That's always the way with the blueberries, though:
There may not have been the ghost of a sign
Of them anywhere under the shade of the pine,
But get the pine out of the way, you may burn
The pasture all over until not a fern
Or grass blade is left, not to mention a stick,
And, presto, they're up all around you as thick
And hard to explain as a conjuror's trick."

"It must be on charcoal they fatten their fruit.
I taste in them sometimes the flavor of soot.
And, after all, really, they're ebony-skinned:
The blue's but a mist from the breath of the wind,
A tarnish that goes at a touch of the hand,
And less than the tan with which pickers are tanned."

"Does Mortenson know what he has, do you think?"

"He may and not care, and so leave the chewink
To gather them for him—you know what he is.
He won't make the fact that they're rightfully his
An excuse for keeping us other folk out."

"I wonder you didn't see Loren about."

"The best of it was that I did. Do you know,
I was just getting through what the field had to show,
And over the wall and into the road,
When who should come by, with a democrat-load
Of all the young chattering Lorens alive,
But Loren, the fatherly, out for a drive."

"He saw you, then? What did he do? Did he frown?"

"He just kept nodding his head up and down.
You know how politely he always goes by.
But he thought a big thought—I could tell by his eye—
Which, being expressed, might be this in effect:
'I have left those there berries, I shrewdly suspect,
To ripen too long. I am greatly to blame.'"

"He's a thriftier person than some I could name."

"He seems to be thrifty; and hasn't he need,
With the mouths of all those young Lorens to feed?
He has brought them all up on wild berries, they say,
Like birds. They store a great many away.
They eat them the year round, and those they don't eat
They sell in the store, and buy shoes for their feet."

"Who cares what they say? It's a nice way to live,
Just taking what Nature is willing to give,
Not forcing her hand with harrow and plow."

"I wish you had seen his perpetual bow—
And the air of the youngsters! Not one of them turned,
And they looked so solemn-absurdly concerned."

"I wish I knew half what the flock of them know
Of where all the berries and other things grow—
Cranberries in bogs and raspberries on top
Of the boulder-strewn mountain, and when they will crop.

Picture taken by Hohenberger

I met them one day, and each had a flower
Stuck into his berries as fresh as a shower;
Some strange kind—they told me it hadn't a name."

I've told you how once, not long after we came,
I almost provoked poor Loren to mirth
By going to him, of all people on earth,
To ask if he knew any fruit to be had
For the picking. The rascal, he said he'd be glad
To tell if he knew. But the year had been bad.
There *had* been some berries—but those were all gone
He didn't say where they had been. He went on:
'I'm sure—I'm sure'—as polite as could be
He spoke to his wife in the door, 'Let me see,
Mame, *we* don't know any good berrying place?'
It was all he could do to keep a straight face.

"If he thinks all the fruit that grows wild is for him,
He'll find he's mistaken. See here, for a whim,
We'll pick in the Mortensons' pasture this year.
We'll go in the morning; that is, if it's clear,
And the sun shines out warm: the vines must be wet.
It's so long since I picked I almost forget
How we used to pick berries: we took one look round,
Than sank out of sight like trolls underground,
And saw nothing more of each other, or heard,
Unless when you said I was keeping a bird
Away from its nest, and I said it was you.
'Well, one of us is.' For, complaining, it flew
Around and around us. And then for a while
We picked, till I feared you had wandered a mile,
And I thought I had lost you. I lifted a shout
Too loud for the distance you were, it turned out,
For when you made answer your voice was as low
As talking—you stood up beside me, you know."

"We sha'n't have the place to ourselves to enjoy—
Not likely, when all the young Lorens deploy.
They'll be there to-morrow, or even to-night.
They won't be too friendly—they may be polite—
To people they look on as having no right
To pick where they're picking. But we won't complain.
You ought to have seen how it looked in the rain,
The fruit mixed with water in layers of leaves,
Like two kinds of jewels, a vision for thieves."

From "North of Boston," by Robert Frost.
Published by The Henry Holt Co.

Why Fish Build Their Nests in Trees

Being a mixed portion of facts and fancies about farm life by a farmer who gets to musing over a city man's foolish questions

By William Johnson

Illustrations by George Varian

A YOUNG fellow who was selling books, asked me one day why country folks age so much faster than those in the city. I told him that maybe it was for the same reason fish build their nests in trees.

He got my point.

"But they do age faster," he contended. "They look older. They're more—more wrinkled and—and—"

He didn't know just how to say it.

"Life," I said, "writes things in the human face. Wrinkles are the lines of inscription, the records of smiles and sorrows, laughter and tears. They say, 'Here is a man or woman, strong and fine; and there is another, weak and untrustworthy.'

"Would you have those records erased? Do you want faces like books with empty pages? In the cities are beauty parlors, where they do things like that. I can almost fancy the Creator saying on Judgment Day, to the owners of those features with their revealing lines erased:

"'Where are the records of what you did below?'

"Maybe those lines are as clear to His eyes as the work on a child's slate is to its teacher. Maybe they serve the same purpose."

I will walk fifty yards on my hands through a thistle patch, to see any younger old folks than we have here in Bay Port. A good many of us have silver hair, and a few haven't much hair left of any color. Some of our faces are deeply lined, and we don't all step off as we did twenty years ago. But when we get together at our parties and picnics we are just a lot of young folks of different generations having a good time together.

OUR old people are our leaders. Theirs is the wisdom of life, learned from all its mingled bitter and sweet, and one of its lessons is not to take things too seriously. We give them the reins in our social affairs, and put them on our school and town boards and into other offices—not because they are rich, for I am happy to say that there are no social lines drawn by a banker's pen in Bay Port. We do it because they have that happy, clear knowledge of men and women and human affairs that is found only on the summit of the years.

We are proud of our old people. I sometimes go to the city, and I see men of fifty, sixty, and older, fat, soft, and shapeless—three or four chins and a waist measure requiring a belt almost big enough for a small wood-sawing rig. I come back and compare them in my mind with hard, clear-eyed, iron-muscled men of our little neighborhood, who have worked for half a century and are still in the harness. And I wonder where the folks make their observations who say that men and women of the farm age faster than those in the cities. Age or youth is more than a matter of a wrinkled or smooth face—very much more indeed.

Take Uncle Dave Dayton with his seventy years, straight and strong, with the laugh of a boy and the heart of a child, yet shrewd as a Scotch lawyer when occasion demands. He and Dick Larned, who is our champion tall-story teller, have about as much fun playing pranks on each other as any two youngsters in the neighborhood. And it is fun for the rest of us, too. Just about the time we are through laughing over something that one of them has done, the other evens the score.

"But they do age faster," he contended

Last September, at our Grange picnic, Dick and Uncle Dave had a boat race on the bay, for a purse of twenty-five dollars, the money to go to the Red Cross. It was quite a while before Uncle Dave heard the last of that affair. He was about halfway to the goal when Dick passed it, and, being as good a rower as Dick is, we knew there was something wrong with his boat.

He pulled back to the beach, his face a study, and as many as could get hold of the craft helped him to turn it over. What a shout of laughter there was! Someone—Dick Larned of course—had nailed a bag of hay to the bottom of it.

Dick is a grizzled little man, with a face colored and wrinkled like a baked russet, and so innocent-looking that you know he is chock-full of mischief. He tried to seem surprised and concerned, but didn't fool anyone, certainly not Uncle Dave. And revenge wasn't long delayed.

ABOUT ten days later, Dick left a load of wood standing on his wagon one evening, in front of an old frame house in which no one lived. He intended to hitch on to it earlier the next morning than he could get into the woods after a load, and so crowd three trips to Pineville into one day. He did that quite often—but not this time.

Uncle Dave Dayton

When he came along with his team the next morning, about daylight, wagon and wood were gone. All over the neighborhood Dick searched that day, never once connecting Uncle Dave with the mystery, but found no trace of his property. It was a mystery, too, for nothing in Bay Port has ever been stolen—except watermelons, which are perhaps a justifiable exception. That night Dick telephoned an advertisement in to the Bay Port "Times," offering "a liberal reward for information" concerning his missing wagon.

The paper had scarcely arrived in our mail boxes when Uncle Dave phoned over to claim the reward.

"How do *you* know where it is?" Dick demanded, suddenly full of suspicion.

"Never mind how I know," Uncle Dave said. "I've got a bag of hay that I paid twenty-five dollars for, and I'll give it to you and show you your wagon if you pay that sum to the Red Cross treasurer."

Dick Larned

Of course Dick had to agree, and Uncle Dave took him over to the old house, in front of which the wagon had stood, opened the door, and there it was inside, with the wood on it. Dick looked at the windows and doors, too small by far for a farm wagon without any load to go through, and scratched his head.

"Uncle Dave, you can keep the hay," he said, "if you'll tell me how you did it."

"I didn't do it at all," was the answer. "I merely suggested to some of the boys that the outfit could be taken apart, carried inside and set up. You can't blame me if—"

But Dick was already off after help to reverse the process. Naturally, he came in for a great lot of jollying. Jed Carter, who is getting to be something of a dry humorist since a pair of little lady babies arrived at his home, told him he shouldn't feel badly about losing anything so small as a wagon—he'd known men to lose farms and not know how.

Uncle Dave says that no man or woman has really learned to live until they get up each morning wondering what pleasant thing will happen before the day is over. I don't for a moment claim that everyone in Bay Port begins each day in that heavenly frame of mind. We have a few pessimists—folks who believe that every rose conceals a wasp and that any pathway open to human feet is strewn with banana skins. But the big majority of us believe in the sweetness and soundness of things, and daily our faith is justified. Even the few who look upon life as an altogether rigorous struggle supply a lot of the sunshine that the most of us are looking for.

OLD Sam Smalley is one of these. He is outwardly, at least, a hard, bitter man, who has never been known to say a sentimental thing. I have told in these papers of his grief for the boy who ran away, that has for twenty years been gnawing within him. But it has not broken his iron will. He looks out upon the world from under his heavy brows as fearlessly as he did a half-century ago, and he was seventy-nine the twelfth of January. A lion of a man old Sam has been, and such he will be till the sod of the little marble-dotted enclosure that holds Bay Port's dead is folded over him.

"The world fights you with innumerable weapons," he said one day. "A man has but one. That one is backbone, but it is the best of the lot. Backbone was the weapon with which the earth was conquered. It had to come before any creature could stand up straight and walk. That creature was the ancient ancestor of man, and the race has overspread the globe, subdued all other creatures, and conquered the very forces of nature. It did it with backbone."

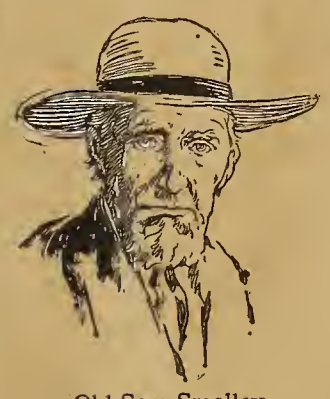
A rugged philosophy is old Sam's, tinctured with the despair of a man who has lost both love and hope, yet fights on. Men like that, who can have their hearts broken and never whimper, are an inspiration. Their lives cry shame upon littler, self-pitying folks, forever complaining about a lot of imaginary ills that they should walk out into the sunlight and forget.

And, in his own peculiar way, Sam Smalley had done a great many deeds of Christian kindness. I remember one in particular that is typical of his unyielding but high-principled nature.

Years ago a gruff old bachelor, much like Sam himself, lived alone in a cabin on the edge of the big woods that then lay next to the Smalley farm. There had been trouble between the two men, and for years neither had spoken a word to the other. Tom Benson was the old bachelor's name. One winter a violent epidemic of la grippe went through the thinly settled neighborhood. Tom took it and developed pneumonia, there in his rude cabin, with no one to so much as give him a drink of water. He must have died had help not come from a most unexpected quarter. Sam Smalley strode into the cabin, sent for a doctor, paid the bills, and stayed with the sick man until he was able to look after himself.

Tom was grateful. He tried to thank the man who had saved his life, but Sam would have none of it.

"You're well now; keep off my path!" he said, and walked out of the door.



Old Sam Smalley

For a long time Sam Smalley has been our town chairman, one of his duties being to pass on such few cases of public charity as come up. About a year ago a family moved from the next town into a tumbledown little house on the edge of our village, and lived, Heaven only knows how, until this winter. Then the wretched mother applied for help for her three half-starving, less than half-clothed children. It was a pitiable case. Even gloomy Ezra James, one of the town supervisors, and about as close a man as ever counted pennies, was for granting the request. But old Sam wouldn't hear to it.

"The father is able to work," he stormed; "just plain lazy. We've got no right to give the money other men work hard for to a shiftless scamp like that. We won't, as long as I'm chairman."

Ezra Jones

But that same night Sam Smalley drove up to the unhappy home to which he had refused public aid, and carried in a sack of his own flour, half a hog, a bag of potatoes, and a basket of groceries. Maybe you can imagine how that poor woman thanked him while she cried. Old Sam turned from her to her husband, sitting by the stove with his pipe, and told him to come over in the morning and get some clothes fit to wear out in the cold.

"I've got some wood to cut," he said in his grim way, "and you'll cut it, or there'll be more room by that stove for the children."

The man did as he was told, for never in all the years we have known him has anyone trifled with Sam Smalley.

What a tragedy that a family like that must end, as it will when Old Sam dies, if the boy from whom he has never heard is not living! Yet, his is a breed of men that will go on as long as human kind lives in the open places. It is born of the soil and the winds that have blown over it since time began, of the frosts and beating rains, the wide sky and the far stars, and the sunlight that is poured like hot gold over the fields. There is a largeness and a vigor to these things that streets and high crowding walls do not possess. Men and women cannot live with the very throb of nature's heart transmitted to their veins, and not show some of its calm, rugged power in their lives. We do not merely reflect our environments—we *are* our environments.

I REMEMBER when young Harvey Erskine left us the other day, to take a job in his uncle's office in the city. He went over to say good-by to Uncle Dave, and Henry Stubbs and I happened to be there.

"I'll come back real often to visit," Harvey said. "See if I don't!"

"No, Harvey," Uncle Dave answered in the quiet way he has. "You'll never come back. A young fellow who was you will come to see us, but he won't be the boy you are now. The city will take the quiet of the country out of you, and put its own smart ways there instead."

I don't think Harvey understood. It is a thing that no one can understand who has not lived in a country place as we are living, and seen the girls and boys who went away to the city come back each year, with its speech, its thoughts and its styles, crowding our own ways out of them. Only a few of our young folks have left us that way, and we are glad when they succeed; but we cannot help picturing them as they would have been had they stayed in Bay Port. And, to our way of thinking, the comparison reveals a price payment for what the city gives them that is far too high.

The work I do on this publication is done without pay. Also, the work I do on Potato Hill Farm is without pay. I was assisting in husking corn the other day, and not only worked for nothing, but wore out a twenty-cent pair of gloves.

E. W. Howe's Monthly.

The O'Brien

A real girl finds a real man in the big woods

By William R. Leighton

Illustration by J. E. Allen

I BELONG to the tribe of Casey. I'm a sawmill machinist by trade, sober and industrious and with some good money laid by; but single. That's not my disposition; it's just rough luck. I've got the heart of a natural-born Romeo, but the make-up of a clown. Any woman who agreed to marry me, with my mop of brick-colored hair and my grinning mouth and the stout, chunky, healthy shape of me, would do it merely because she couldn't help being fond of a good joke. Besides, everybody calls me "Curly." That makes it hopeless. Why, if the great god of love himself had been called "Curly" by the rest of the immortals it would have ruined him for his rôle.

So when I set out to tell a great love story you know it's not my own. It's another man's. Just the same, the ridiculous comedy presence God gave me let me help the other man through the rough waters of experience. That's compensation.

The boss called me into the office from the factory shops one day.

"Curly," he said, "those saw rigs for the Arkansas job are being loaded out to-day. I want you to go down there and help get things ready. You'll have several free days before the stuff gets on the ground. You may need 'em. It's a queer proposition they've got. They're likely to have trouble with the natives squatted on their lands. Maybe you'll see some of it. You won't mind a little scrapping if you happen to run into it?"

"Mind?" I said. "Me? Oh, no!"

"You'll stay till the mills are set," he told me. "But you won't be alone with those natives. There's a fellow who'll meet you at the railroad in the morning. O'Brien, his name is. A good man."

It wasn't all new stuff the boss was telling me. I knew something about it. The lumber company owned a most amazing lot of most amazingly good oak timber down in the White River country. They'd been picking it up for years, getting ready for operations; and now they were going to set up half a dozen sawmills, scattered round through the woods, to cut the stuff for a big finishing plant on the railroad. Helping to build their rigs in the shops had got me interested. I could tell they knew what they were about.

"All right, Curly," the boss said. "Keep me posted. Good luck!"

It was a gray dawn when I tumbled off my train at the little Arkansas woods town—a squalid settlement squatted down in a mess of woodsmen's wreckage. The pine men had been there, had cleaned up, and moved on. Everywhere was a litter of rotting treetops and rotting logs. Down by the track was a mountain of rotting pine sawdust where a mill had once stood, and there were rows of ragged, rotting old stack bottoms that hadn't been worth moving when the mill quit. Along the muddy road was a double row of wooden hovels set up on piling to keep them out of the mire. They made the town. Decay was everywhere; the air was dank with its heavy odor. I didn't like the looks of the place a bit.

And then away up yonder at the head of the road, where the woods crowded close against the town's edge, I saw a man coming.

"That'll be O'Brien, now," I told myself. "God bless the Irish!"

He was coming five miles an hour, with every move a joy to him. I noticed that first, and then I noticed the most uncommon good looks of him. My word, but he was a handsome chap! A six-footer, and big, with every fiber of him strung up tight with the zest of life. He was laughing as he came along toward me; I could see the shine of his strong white teeth; and long before he was close enough to let me make sure I knew the color his eyes would be—real Irish blue, full of living lights, like clear summer water reflecting summer sky. And the gay, impudent, clean-cut face of him! Oh, he was a man!

"And his name's O'Brien, is it?" I said to myself, watching him. "Well, he's not the runt of the family that's so sure. He's *The O'Brien!*"

HE SWUNG up to me with his hand out. "Hello!" he said. Just one word, but I loved him from that minute. It was his voice that did it. It's not often you hear a real bass. He had it—a magnificent voice, rich and full, with a throbbing sort of cathedral-organ undertone.

"Hello! You're Casey. Praise be! If they'd sent down a Schmidt or a Paoli or a Svenson—but you're Casey. And I'll bet I know the rest of your name. I'll bet a dollar it's 'Curly.'"

"Well, you win," I said. "I might have known you would. You look like a lucky man."

He tipped back his head and laughed—a deep, booming laugh. Here and there a disheveled figure appeared in a doorway, peering out to see what the trouble was.

"Welcome!" he said. "I hope you're not hungry. It's little you'll be getting for your breakfast. If I had you in one of my camps, now, I could feed you right; but we'll not be there for dinner. One of the owners is coming in on the up-train at ten. I've got to wait here for him."

"Hungry!" I said. "Sure I'm hungry. But I'm not going to eat chunks of lukewarm fat, back in that dirty hotel. We'll get something at the store."

We carried an armful of stuff down beside the railroad track, and kindled a fire there, tramp-fashion. It was good. Day came on golden, and while we ate we talked. I loved that talk. Maybe it didn't go deep, but it was a perfect revelation of that new friend of mine. Every word he spoke was brimming-full of a great, rollicking Irish temper, equal to anything. The heart of him was big and bold and adventurous. He'd been up and down the world, and he'd seen a lot and done a lot and thought a lot; but with it all he'd kept a quaint sort of gentleness that was better than all the rest. It wasn't womanish; it was most intensely masculine. I don't know but that the finest of all the creatures that walk the earth is the man who's won through a lot of experience and gained a clear-seeing, incorruptible simplicity. O'Brien had it. I wasn't going to care what that job might bring, so long as I'd have him there to share it.

Well, and then by and by the train came in from the south, bringing old Peter Bates, the head of the lumber company.

I wasn't going to love old Peter. I knew that from the minute I set eyes on him. He thought he was a great fellow, but there was nothing to him at all. He was just one of the commonest sort of rich men, gray and coarse-grained and beefy. You may count a hundred exactly like him in an hour on any business street in America, any day in the year. Those chaps own most of the money, and they walk their ways insolently and most of us turn meekly out of their paths to give them room; but they're a poor breed just the same.

We went down the platform, O'Brien and I, to meet him. There were a few meaningless words and a couple of flabby handshakes. Then all at once old Peter Bates simply ceased to exist for my friend O'Brien. I happened to be watching him, and I saw him stand suddenly straight, with the light of a living fire flashing into those fine eyes of his. I had a notion of what I'd see when I turned around.

A girl was coming from the car. With her foot on the lower step she stopped dead-still, her eyes on O'Brien. For a moment I thought the look she gave him meant recognition; but then I knew better. I don't know how to say it for you, unless you're one of those who believe that there may be meetings like that with Destiny stamped on them unmistakably from the first swift instant. I believe it. At that, I'm not a crazy sentimentalist. I declare that what I saw wasn't wild fancy. If ever love between man and woman was full-born in one immaculate moment, it happened just then, right before my eyes.

She was slender and dark, proud, too; but that wasn't the mean pride of vanity. The care and the indulgence that money had bought for her had nothing to do with it. Her pride was just the exquisite quality of cleanliness and fineness. She was clean as a jewel, with a sort of jewel brightness about her. But quiet, wonderfully serene. She'd be hard to move over trifles, proof against the sway of light notions. It was no trifle that held her mind then. I think she knew beyond all doubting that something was to come of that meeting. It was written.

OLD Peter's cold voice was sputtering about something or other that didn't please him. It struck him all at once that nobody was paying any attention to what he said. He turned and helped the girl from the step. It wasn't courtesy but just a grudging concession of decency that made him speak.

"My daughter. O'Brien. And Casey—isn't that you're name?"

I happened to be nearest her. She gave me her hand, looking straight at me, letting her eyes kindle with a laugh—just as they all do when they get their first glimpse of me. A small hand, dainty, but firm and strong, too. She didn't let me keep it long, but turned from me to O'Brien, and forgot all about me.

There weren't many words between them. Words weren't needed. The meeting was color and light—flame. Somehow I felt as if I ought to be looking the other way, but I couldn't. It was the old man who interrupted. He was fuming and fidgeting, taking a disapproving look at the town.

"What kind of a forsaken hole is this?" he demanded of O'Brien. "I thought you wrote that I'd have a decent place to stay."

O'Brien attended to him then, gently, kindly.

"Not in town, Mr. Bates. It's a ramshackle relic of a town. I meant to take care of you in my own camp. But you didn't say anything about bringing your daughter. My camp is spick-and-span clean, and there's plenty of room and plenty to eat; but a lady—"

THE girl cut him short with a gay little laugh.

"Oh, don't! I wanted to come, and I want to see what's here—all of it. Don't make me feel that I'm a nuisance. Take us to your camp, Mr. O'Brien."

Somewhere O'Brien found an old double-seated phaëton and a pair of lean little ponies, and we set off into the woods. An eight-mile ride he said we'd have. That suited me. I love outdoors, and that morning was a wonder, following the twisting road through the coolness and freshness and fragrance of the big timber. It would have been perfect if it hadn't been for the old man back there on the rear seat with his daughter. It wasn't beauty he was seeing; it was just so many dollars' worth of trees for his mills to cut up.

"There's a fine white oak!" he'd say in his hard voice. "Straight and sound. Five hundred feet in a twelve-foot butt cut, and big enough for quartering. That's fifty-dollar stuff, just sawed in flitches. And we've been getting this stumpage for ten and twelve dollars an acre, with the land thrown in. That's money!"

He'd sit and chuckle over it with a sound like an ogre relishing a choice morsel, flicking his cold eyes greedily about at the solid miles of woods that belonged to him. He was full of questions too—brusque little questions of detail aimed at O'Brien. O'Brien had to turn round in his seat to answer. I guess that wasn't a hardship; you'd have judged so by the sound of his voice. So far as the words went, he was talking about saw-milling, and nothing else, and just for the old man's fleshy ears; but between the words and over and under and around them his great voice was singing a love song—singing, singing! I knew! Once in a while, out of the tail of my eye, I caught a glimpse of the girl nestled back in her corner, listening. She knew, too. Take my word for it, a miracle was coming to pass in that rickety, [CONTINUED ON PAGE 16]

If ever love between man and woman was full-born in one immaculate moment, it happened just then, right before my eyes. With her foot on the lower step, she stopped dead-still, her eyes on O'Brien

Before You Buy Stocks or Bonds Give Them This Test

By George J. Roland

"SOME investments will let you eat; others will let you sleep; but many will let you neither eat nor sleep."

This remark, made by a fellow passenger on a railroad train, indicates one way of telling what is a good investment from a bad one. My fellow traveler, John Parkhurst, was telling about some losses he had suffered through foolish investments.

Parkhurst is a farmer. He was raised on a farm, makes money at farming, and still lives on a farm, although retired. He is a man well along in the seventies, and the story of how he lost money through gambling in worthless stocks covers a period of over fifty years.

The stocks he referred to as the "eat" kind signified those paying large dividends. The "sleep" brand included those that didn't pay such large dividends, but were considered safe. The owner, in other words, is free from worry, and doesn't need to lie awake nights in fear of losing his money. The kind that neither lets you "eat nor sleep" includes the worthless and unsound promotion propositions that clever salesmen put over on the unsuspecting public.

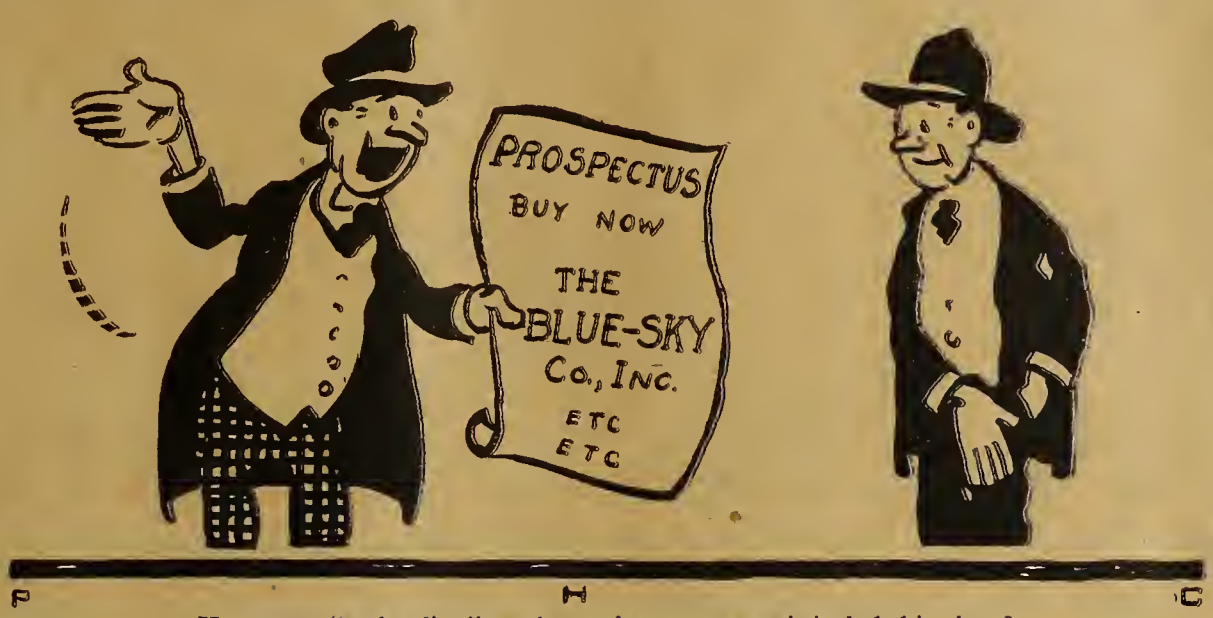
John Parkhurst inherited some money, and when he became of age he assumed control of it. He saw an advertisement of a free booklet entitled, "An Insight Into Wall Street." This was fifty years ago.

Wall Street has been much the same for a century or more—a narrow and somewhat winding street in the oldest part of New York, where many of the large banks and investment houses are located. To Parkhurst at twenty-one, Wall Street signified a way to make money without working. So he sent for this free booklet, which, by the way, did give a pretty good description of that historic old street with a church at one end and a river at the other. The booklet also contained short sketches of the great financial successes of the day, and how their fortunes were made. To be sure, it made interesting reading.

THE booklet did not argue in favor of any particular kind of investment. It was merely offered *free* as a means of getting a "sucker" list, as Mr. Parkhurst called it, of people who like to get something for nothing. They are the ones who "fall" when a tempting but worthless speculative investment is offered.

The advertiser offering the free booklet did not even attempt to sell stocks or bonds, but turned the "sucker" names over to crooked promoters, with the privilege of using the Wall Street address for mailing purposes. Every new name sold for 50 cents, and Mr. Parkhurst's went along with the rest. From that time on he received the luring circulars of mining corporations, oil promotions, manufacturing enterprises, shipping companies, electrical propositions, irrigation projects, and dozens of others.

Once or twice each year some strange stock salesman would visit him. To make a long story short, he is to-day a stockholder in a hundred or more bankrupt concerns, his name has been passed on from one broker to another, and he has enough beautifully colored stock certificates at home to paper the inside of a house. But, according to Parkhurst's own story, he has long since said "good-by" to his money, and simply keeps the stock certificates as souvenirs of his past folly.



How many "sucker lists" can boast that your name is included in them?

How many men are there to-day that have some of these same worthless prize treasures stored away, fading and gathering dust, but of value only to look at! How many "sucker lists" can boast that your name is included in them, and sold for 50 cents?

Mr. Parkhurst's story, to be sure, was not a record of loss all the way through. Every time he lost he learned, although he paid a big tuition. It finally dawned on him that a man's business is to make money at his own business, and to save money through careful management; to invest his savings in a conservative way, and not try to make big profits through speculation, probably losing all he had saved. Parkhurst was also convinced that you can't afford to take a chance on a new proposition out of your own regular line, no matter how good it looks. In other words, let the other fellow take the initial risk.

This was Parkhurst's *investment creed*—keep out of every new proposition—and as he went on to describe a big "bubble" that was recently promoted in his home section, he asked me whether or not the average man would have invested in it. What is the answer?

The facts of this investment temptation were these:

About a mile from where Parkhurst lives, in western Pennsylvania, is the town of Pennville. It is a town of about 1,000 houses, a couple of banks, and a few small factories no different from a thousand others.

During the war, Pennville was the center of important government operations. A munitions factory was operated there to make army trucks. This work was discontinued in 1918, and the factory sold to local interests. It was a pretty well-equipped plant, and with a little fixing up might be utilized to make trucks again. In other words, it was what they call "a possibility" when a good thing is lying idle.

Many of Pennville's 1,000 houses were vacant and deserted, while Pittsburgh, Cleveland, and other large cities were overcrowded. Something wrong somewhere! Why would it not pay to have the population of the country more evenly distributed?

Pennville got the answer to this question shortly after New Year's, 1921, when a man named Jackson arrived in town.

It appears that Jackson had visited Pennville on previous occasions, and had sized up the town as a likely place to pull off a stock promotion. He had no doubt learned that the farmers in the neighborhood all had bank accounts and Liberty bonds. Many of them had automobiles. Jackson had also sized up the inhabitants of Pennville as people of means.

But Pennville, with all its wealth and refinement, appeared dormant, and something was needed to stir it up. One morning in January, on the front page of the Pennville daily, appeared an announcement that important parties were negotiating for the idle munitions factory. On the back page there was a large "ad" requesting property owners to list their vacant houses for rent or sale at the factory employment office.

THE second day carried another story on the front page of the Pennville paper: An option to buy the factory had been signed. There was also a report of Jackson's talk before a dairymen's meeting. Of course, Jackson explained that he was not at liberty to disclose facts *just yet*, as he was working in a "confidential capacity," which was true—confidential with a certain set of brokers many miles away. Interest was aroused in all quarters.

The third day brought forth the news that the Pennville Tractor and Truck Company *would be formed*. Jackson was to remain in Pennville as a special representative of certain "important interests" to work out this proposition.

Sunday dawned. Pennville had never really noticed the lack of a Sunday edition of the paper, but they did this day. Of course, everyone went to church, and so did Jackson—the people wanted to be on hand if any good news was spreading; Jackson wanted to listen for news also, for he had to make up plans for the coming week. Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday—six busy days for Jackson and Pennville's money waiting to develop his plans. After church, he retired to his hotel to further crystallize his scheme.

In fairness to Jackson, it should be said that he was ignorant of the factors necessary to the success of a manufacturing enterprise, and he was too lazy to find out. He was interested in the three o's of a corporation — organization, opportunity, and out. He was willing to give the other fellow the opportunity to get in by subscribing for stock, and thus enable him (Jackson) to get out.

AS PARKHURST went on with the story, and related how Jackson's salesmen got stock subscriptions from almost everyone, I interrupted him with the simple question: "Why will people venture to go in on a proposition they know nothing about?"

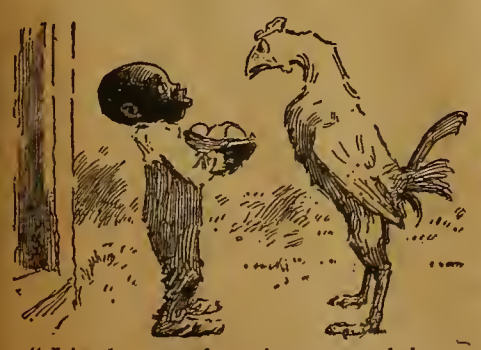
This question Mr. Parkhurst couldn't answer.

There was another sidelight on this proposition that the public didn't know about until later, and that was the "important interests" which Jackson was supposed to represent. These "interests" were far away, at the end of a telegraph line, in a large Eastern city. They were the broker and promoter friends of Jackson. News went to them by wire every day. It was the aim and purpose of [CONTINUED ON PAGE 19]

Here is the Test

1. The company must be a proved success.
2. The management must be experienced, honest, and capable.
3. The company must have a clear record for paying interest and dividends.
4. Facts as to assets and liabilities, earnings, dividends, and other important matters must be furnished in writing, and signed by an official of the company, not by an irresponsible broker or promoter.
5. The brokers offering the securities must enjoy a high standing.
6. Finally, the investment should be bought only upon the recommendation of a competent banker or a reputable newspaper or magazine which makes a specialty of investigating stock and bond issues.

Um-m, Baby, Some Chicken!



"I jes borrowed som' eggs to tek home to ma mammy."

"I'll give 'em to you, but you must take 'em scrambled."

"Does yer see dese egg shots. I's got a new member fo' our club."

"Talk about your picked players: he suttinly am it!"

How I Make Ice Cream

ICE CREAM, like Topsy, "just grew." Being a first cousin of frozen fruit juices and puddings, and a direct descendant of the iced-drink sherbet, famed in the Orient, it has a long history, but the ice cream known to you and me has been developed during the last century. No one housekeeper discovered it.

We are so accustomed to having this dessert in warm weather, when the appetite needs coaxing, if it ever does, that seldom do we stop to think that it hasn't always had a place in our meals. It surely has a well-established position now.

Not only are the children delighted when this dessert appears on the table, but Mother says nothing more pleases the men coming from the field on a sultry day than to have ice cream served to them. Grandmother also speaks her praises, telling how rare ice cream was in the days of her youth, ending with this: "It's easier nowadays to keep house and to set a good table with all the conveniences—easier to make ice cream with a freezer instead of two buckets."

Contrary to the accepted belief, Father gets the last word. He adds: "It's a fine thing for the dairy industry—this growth in the popularity of ice cream."

The first requirement for making good ice cream is eggs, milk, and cream of the highest quality. The flavor of these foods can be detected in the frozen food. Try as one will, it is impossible to hide by freezing any carelessness in combining the cream mixture. It's the smooth, rich mixture which produces a smooth, velvety ice cream. If thin, watery milk is used, what reason is there for surprise when pieces of ice are found in the frozen dessert?

Of course, there are other things which influence the texture of ice cream. As the mixture freezes, it expands. Allowance should be made for this by never having the freezer more than three fourths filled. When this precaution is not heeded, the ice cream is certain to be coarse-grained.

The more rapidly ice cream freezes the greater the danger of its being coarse in texture. For this reason, one part of salt to three parts of ice are used in freezing creams, while with ices, where coarseness in texture is not undesirable, equal parts of salt and ice are used. Salt hastens the freezing process, so the more salt used the quicker the freezing.

Two kinds of ice cream are made in the United States. One is Neapolitan ice cream, which is a frozen custard. It was the first cream eaten in America, and, according to the story, its first appearance in the western hemisphere was in Washington at a Presidential reception given by the clever hostess Dolly Madison. It created a stir in society circles. Thus ice cream scored its first American success.

Philadelphia ice cream, as the name suggests, originated in the Quaker City, so is a typical American dessert. It is made from cream and sugar, with the addition of any desired flavoring.

The equipment needed in making good ice cream is indeed simple. Of course there must be ice—snow will do when it is available. To hasten the freezing, this ice is broken into fine pieces. I find a bag of burlap or canvas is convenient for holding the ice while breaking it. Either a wooden mallet, an ordinary hammer, or a hatchet may be used to break the ice. I mix the salt with the ice in a tub or a large pan, and I have found that a coarse-fine rock salt gives best satisfaction. When the ice and salt are measured and thoroughly mixed, this and the cream mixture are placed in their respective compartments in the freezer.

THIS brings us to what's what in ice-cream freezers. All kinds on the market to-day are decided improvements over the first ice-cream freezer, which, by the way, was invented by an American woman after she had eaten the ice cream served by Dolly Madison.

The two general types are those in which beaters or a dasher, turned by a crank, stir the cream mixture while it is freezing, and those which freeze like the fireless cooker cooks. The coldness of the melting ice is held in the freezer by tight walls and lids, and the ice cream freezes itself. I have had satisfaction with both kinds in FARM AND FIRESIDE'S kitchen.

If you use the one in which the ice cream is stirred during the freezing, the main precaution is to turn the crank slowly and steadily, thereby exposing as much of the cream to the cold surface of the container as possible. As the mixture begins to freeze the turning may be more rapid; then, when the crank turns hard, the dasher is taken out, the cream is packed down with a spoon and the lid is adjusted. Usually I find it necessary to add more ice for the packing—one part of salt to four parts of ice for this purpose. If an old blanket is wet in salt water and spread over the freezer, it will help to keep the ice from melting rapidly while the cream is left "to ripen." No matter what kind of a freezer is used, it is always desirable to let the ice cream stand some time before serving it.

Just what happens when the ice cream freezes is a story in itself. Cold is the absence of heat. The warm cream mixture placed in the freezer, must lose the heat it contains, and it's the melting ice that absorbs the heat from the cream.

In farm communities where the social life is active and ice-cream socials are numerous, a community freezer, owned coöperatively, is a good investment. For such purposes a large freezer, which may be turned by one of the gasoline engines in the neighborhood, is a favorite.

Freezing ice cream where the cream mixture is not stirred is easy, and the ice cream produced is excellent. When using this the ice and salt are placed in their compartment, which has an opening in the bottom of the freezer, a cupful of water is added to start the melting, and a tightly fitting lid is adjusted; then the cream mixture is poured in its compartment through the opening at the top of the freezer, the lid fastened, and the freezer inverted. From thirty minutes to one hour should be allowed for the freezing, although there is no harm done when the freezer is not opened for several hours or half a day. One can forget about the [CONTINUED ON PAGE 22

Dressing Your Best

OF COURSE you want prettiness. If I were writing a recipe for the older woman's clothes, it would read something like this: "Ingredients in equal quantities, mixed well with a heaping measure of prettiness." After all, you know, it takes petite sixteen to wear severity with any degree of becomingness.

I've known a frill to take ten years from a woman's age. Fullness is also the friend of the mature woman, especially if she is growing stouter. Try a few soft folds to hide the awkward curve of the hips.

And there's the question of color. The small woman need not worry her head about it except, perhaps, to match the color of her eyes or to choose a shade that brings out the lights in her hair. But if you are stout, or your hips unusually large, or your back broad, or your arms big, watch out for slenderizing shades. Dark colors are less bulky and conspicuous, when made up, than light shades. Navy blue is nearly always a safe choice. It's one of the popular cotton shades, too. When the older woman wears a becoming navy-blue crêpe or voile, she may have the satisfied feeling that it's the smart thing to do. Lovely browns and grays come both in silk and cottons. The older woman may even venture a medium green if it's a soft shade.

I might be tempted to say, don't wear figures and stripes, if it weren't that I have just seen such pretty small-flower-sprigged voiles and narrow-striped gingham tissues. The small figures and pin stripes add so little to conspicuousness that it is among these that the older woman may satisfy her desire for variety. They are so cool, fresh, and summerlike that, with a supply of them on hand, one wouldn't stop to envy the wearer of awning stripes, checkerboard blocks, blanket plaids, and cabbage roses.

There is something else about this season's fabrics that ought to please the older woman: it's the softness of many of them. If you are older, be sure there is crêpe de chine, Canton crêpe, or cotton crêpe on your shopping list.

If you send a stamped, self-addressed envelope, Miss Gould will be glad to mail to you the leaflets "Becoming Colors" or "The Older Woman."

Miss Gould Answers

Questions That the Older Woman Asks

THE great, big problem in every older woman's mind is a suitable style—at this particular season, a style for a cotton dress. Miss Gould thinks that at least this question is answered in the Farm and Fireside pattern No. FF-4061. She points out the fact that the collar carries out the long line of the tunic panel, and that even the tunic slopes in a graceful manner. Not only will it become the woman of medium build, but it's also an especially good style for the stout woman, and may be obtained in large sizes. No. FF-4061—Dress with Tunic: Long or Short Sleeves (including Transfer Pattern for Embroidery). Sizes, 36 to 46 bust. Width of skirt in size 38, one and three-quarters yards. Pattern, thirty-five cents.

No. FF-4061

PATTERN No. FF-4061 may be ordered from Pattern Department, Farm and Fireside, 381 Fourth Avenue, New York City, or Pattern Department, Farm and Fireside, Springfield, Ohio.

HERE'S another of FARM AND FIRESIDE'S easy-to-make patterns—No. FF-4061. It's designed especially for the older woman and the woman who is stouter than the average.

Perhaps you will like it, as it's made in the picture of navy-blue voile with collar and panel edged with navy-blue rickrack braid and panel embroidered with navy-blue wool. Trimmings in self-color are smarter than a contrast, you know. There's the touch of white, too, that every older woman's dress needs. It's a finely tucked vest of net.

The dress would be pretty in cotton crêpe or one of those delectable gingham tissues. Or if it's a silk dress you need, try it in crêpe de chine or georgette.

Looking Your Best

WHEN the thermometer goes a-soaring, can you still look your best? Or does your face flush into an unbecoming red? Perhaps you are one of those unfortunates who tan and burn and freckle while your coiffure wilts into wet wisps. Let's see if we can't change some of that this summer.

When you are young it doesn't matter so much if you do get a severe case of sunburn or tan. Your supple skin adjusts itself easily. After your complexion has matured it becomes a more serious matter. You find the sunburn lasting long into the winter, and the tan doesn't look at all well during the indoor season. For the older woman, prevention is always better than cure. But it's such a nuisance to be always bothering with a hat, gloves, and a veil, especially for a short trip. Do you know that witch hazel, applied liberally just before you go out, prevents the sun from doing his worst? Don't forget to put some on your neck. Sunburn always seems to hurt worse there than in any other place, and it lasts longer too.

But witch hazel won't keep the tan away. You'll have to resort to stronger measures against that. Some of these are special creams made of special ingredients. They are most effective for a long hot, dusty motor ride or a sunny day out of doors. But for less strenuous occasions try a simple coating of glycerin and rose water.

Of course, you never want to go unwashed when you know your skin needs it. But, really, it's the wisest thing to do after a long exposure to the weather. For about an hour let your skin stay untouched. Then, when it is cool and relaxed, you can go about getting all the dust out of it. A cleansing cream is excellent for this purpose. You may use soap and water if you wish, but cool milk is the very best of all. In fact, if you simply must clean up the very minute you come in, milk is the safest thing to use. Just put it on as you would water. Omit the soap, and let it dry on.

Miss Gould has written some leaflets on the care of the skin for the different ages which she will be glad to send for a stamped self-addressed envelope. Write to Grace Margaret Gould, FARM AND FIRESIDE, 381 Fourth Ave., New York.

We Didn't Know We Were Losing Money Until We Tested Our Cows

By E. M. Harmon

Who is in charge of the Dairy Extension Work at the University of Missouri, at Columbia

OUR Cape Girardeau County (Missouri) Cow-Testing Association last August completed a successful year, and one which demonstrates well the value of testing the dairy herd. Our Cape County cows averaged 4,615 pounds of milk and 228.8 pounds of butterfat for the year. The average profit above feed cost was $82.89 per cow.

If we allow $60 a year per cow—which is a very small figure—for labor and all expenses other than feed, we will find that these cows returned a profit of only $22.89 a head for the year. Then we must consider, too, that it was only the best herds in Cape Girardeau County which were entered in the testing. It is very likely that had all of the cows in the county been tested that profit per cow for the year would have been much less than $22.89.

Another consideration we should make is that, with one exception, every herd which completed a year in the association had one or more unprofitable cows—labor and all expenses considered. Most of these were sold before the year was completed. and were not included in the above average. In other words, had we been able to secure these figures before the association was put into operation, the chances are that even the members would have been found to be making a profit of less than $22.89 per cow with labor, feed, and all expenses considered.

These observations tend to show that the average dairyman at present is making very little, if any, profit. When supplemented with other results from other sections, we find that practically the same situation exists universally.

Among the cows which completed a year in this association 36 per cent of them failed to return a profit of as much as $60 above feed cost. In other words, 36 per cent of the cows which completed a year in the association failed to pay for the feed, labor, interest, etc., expended upon them, and simply ate up the profits from the remainder of the cows in their respective herds.

Then we must consider that these herds are in all probability above the average, and that some of the inferior cows were culled out before the end of the year. Such observations would lead us to believe that more than 36 per cent of our Missouri cows are money losers. And as still further proof of this striking statement we find that, on an average, of all of our Missouri association, last year, 36 per cent (the same figure) were below the line of profit.

TO THE casual observer these figures would look dark indeed for dairying in Missouri. He is likely to conclude (and I suspect correctly so) that at least half of our Missouri cows are milked at a loss. And we are inclined to believe that Missouri cows, as an average, are about as good as the general average from other sections.

Yes, we admit it looks bad on the face of these figures. But we started out to show that testing pays. And if it pays to test the dairy cow, then the cow must pay. Besides, the keen observer wants to see clear through the subject before he passes judgment. For that reason let us go further and see just what the real situation is.

In the first place, we find that when we summarize the results just secured from the Cape Girardeau County Association the cows which completed a year on test divide themselves into four classes as follows:

Class	Production in pounds butterfat	Percentage of cows in this class	Average profit
I	350 to 450	4	$111.10
II	250 to 350	41	53.24
III	150 to 250	41	1.72
IV	50 to 150	14	(Loss) 35.26

There is one thing which strikes us at once. That is that a few cows at the top of the list are returning a nice, comfortable profit to their owners. They are the kind of cows which make their owners money, and which make contented dairymen. On the other hand, down at the bottom, 55 per cent of the cows are either returning an actual loss or are returning such a narrow margin of profit as not to be a desirable investment.

I am reminded of a remark my old Sunday-school superintendent, in a little country town in Kansas, used to make:

"Remember, son, there is lots of room at the top of the ladder, and mighty few people up there. It is the bottom of the ladder that is crowded."

And here is our illustration: Four per cent of our dairying is done in a good, wide margin of profit. Fifty-five per cent is done either at a loss or with practically no profit. There is lots of room at the top and a good profit. But the bottom is crowded.

Another point of very striking interest in the above figures is that one of the 400-pound cows produces in one year as much real profit as 64 of the average cows in the 200-pound class. The 200-pound cow pays 1.72 per cent interest on a $100 investment. while the 400-pound cow pays 111.1 per cent on the same investment, or 1.72 per cent on $6,400. A banker or loan agency will take every precaution to make an extra one or two per cent on investment, and yet we dairymen, as a class, pay little attention as to whether we are making two per cent, one hundred per cent, or actually operating at a loss.

"But," I am asked, "by what means are we going to get rid of our poorer cows and build up a high-producing, profitable herd?" My answer is, "Through the organization which is doing more for the small dairyman to-day than all other agencies combined—the cow-testing association."

A cow-testing association consists of a group of twenty-five or twenty-six dairymen who effect an organization for the purpose of having their herds tested. They employ a man who devotes his entire time to testing these herds. The expense of this work is borne by the members themselves, and usually is paid for at the rate of about $3.50 each month per member. This rate, however, varies with different associations.

The tester employed spends one day each month in each herd. He weighs the milk and takes samples night and morning, and then tests the samples from each individual cow. He also keeps a feed record of each cow in the herd. Then, by using this day as an average for the month, he figures the production of each cow, the value of the product, the value of the feed consumed, and the profit above feed cost.

There are three good reasons why no dairyman can afford to be without a cow-testing association. The first of these is that it gives a basis for culling the herd, and for the selection of heifers to replace the old cows. In these days of high-priced feed a man may easily make a bigger mistake in selling one cow than his entire year's testing bill would be.

There is every reason to believe that thousands of dairymen all over the country are making this kind of mistakes. Are you one of them? Do you *know* what your cows are doing?

Here in Missouri we farmers are actually paying about 400,000 cows for the happy privilege of milking and feeding them twice a day 365 days in the year. And we venture to guess that the percentage is about the same in other States. Are any of your cows in that unprofitable group?

Our 200 cow-testing association members in Missouri are living proof that the man who wants to build up his herd and make money out of cows cannot afford to be without a cow-testing association.

"We sold a boarder last week. She was losing us more money each year than the association costs us," said a member of the Cape Girardeau County Association.

"I started out with fifty cows in the association. I've sold twenty-four, and am making more off the twenty-six than I did from the whole fifty," said Lee Hurst, of the Webster County Association.

These are just two of the many illustrations showing an increased profit due to culling the herd.

A SECOND proof that a cow-testing association pays is in the matter of feeding. A man can soon waste the cost of his year's testing by using the wrong kind of feed. The tester in going from farm to farm twenty-six days in the month is always carrying the latest news as to just what every other member is feeding. This is a great aid in helping select the right feeds and methods. Carl H. Soest, president of the St. Louis County Cow-Testing Association, gives the following statement as regards his experience along this line:

"I have been able to save $75 a month on my feed bill and get just as good results by following the advice of J. Loyd Malone, our tester."

Here I am reminded of J. D. Wilkerson of Marshfield, Missouri. He joined the cow-testing association there less than a year ago. At that time he was milking a bunch of "scrubs" or, as he termed them, "brush cows." He was doing the best he could with them, and started off in the association with an average rate of not over 200 pounds of butterfat a year per cow.

But Dell Wilkerson is a man who will not be outdone. He began to watch his neighbors, and to put into practice better feeding methods. Incidentally he got a few good purebred cows when he could find some worth the money. To-day the Wilkerson Holsteins are leading all cow-testing association herds in Missouri, both for production and profit. He has twice set a new state record for average herd production and also holds the state record for an individual cow. He studied his neighbors' methods through the cow-testing association. Now they are studying his.

A THIRD reason why no dairyman can afford to be without a cow-testing association is the value of the records in the sale of surplus stock. Last winter, at about the same time, two neighbors in Pettis County offered their grade Holstein herds at public sale. The stock was apparently of the same value, except that Lee Gentry had cow-testing association records on his herd. The Gentry herd brought an average of $245 a head, and the other herd averaged $125 a head.

A year ago Wes Popejoy's herd of grade Jerseys at Marshfield would have gone begging at $75 a head. After having his cows tested for a year, the entire herd sold in public sale for an average of $157 a head, and a top price of $209 was paid for an old grade Jersey cow.

Undoubtedly the cow-testing association is a paying proposition for any dairyman who is trying to make money with cows. But it goes further than that: it has a stabilizing effect in the way of putting dairying on a healthy business basis in the community where it is organized. It shows the value of purebred sires, of silage, of balanced rations, and of other modern practices on the dairy farm. It eliminates the guesswork, and makes of dairying a business.

And why shouldn't dairying be on such a basis? Suppose [CONTINUED ON PAGE 21]

Advice? Oh, Yes—All Sorts!

THESE little quips of a Virginian farmer humorist will carry a sting for the hand-to-mouth farmer who reads them, but the farmer who knows the profits of special care and feeding in milk-and-butter production will find a chuckle as he reads and digests their terse satire:

"Don't weigh your milk, for then you might have to figure and think.

"Feed the cows timothy hay—it is good for race horses.

"Cow-testing associations are needless—they show how to save and know.

"Keep the barn hot—cows are like woodchucks.

"Don't have any windows in the barn—the hired man might look out.

"Keep water ice-cold—shivering gives the cows exercise.

"Avoid heavy milkers—they consume too much valuable time."

The only thing we're sorry about is that the author of these epigrams forgot to sign his name.

THE EDITOR.

Here is one of the real old-fashioned Dutch ovens, of the kind you've probably read about at some time or other. This particular one was found in service on a farm in the Bridgeton district, a rich agricultural region near Philadelphia. Many of the Pennsylvania Dutch farm wives still bake their bread in ovens like this one when the weather becomes too warm to make indoor ovens comfortable things to work around. Doesn't this one look for all the world like a giant dish of ice cream?

The O'Brien

[CONTINUED FROM PAGE 12]

rattling old phaëton—the old original miracle of God. Right under old Peter's eyes—and he wasn't even guessing it!

We came to a hill by and by, long and steep. The poor little ponies went at it, but it staggered them. The girl moved in her corner.

"Let me walk," she said. "I'm tired of sitting still so long. I want to feel the earth under my feet—the real earth."

I took the lines from O'Brien's hand as if it was a matter of course, and they two got out and fell behind the carriage. I don't believe the old man noticed; he was still peering ahead, studying the timber on the slope. I touched up the ponies to take us ahead of the loiterers. They didn't need us. Old Peter cleared his fat throat.

"You're a stranger here, Casey?" he said. "Then you don't know what this valley land is selling for, cleared up? It's worth a hundred dollars an acre; it'll sell for that when we get it moving. And it cost us only ten to twelve with the timber on it. That's money!"

IT WAS man's work we had cut out for us there in the deep woods, building our sets for the mills; a huge task to be managed with rude strength and the rudest of means, hewing the great timbers for the foundations, dragging them up into place, and laying the structures with the sheer brute power of backs and arms and legs. It was mighty different work in the shops, where the touch of a finger on a switch would release a hundred horsepower. There was no such thing in the wilderness; the job there was like being thrown back to the very beginnings of things. But it was good! That sort of thing does any man good, once in a while.

The best of it was, the dead weariness at the day's end, when we crawled back to the camphouse so fagged that every dragging step was hard labor, but with the appetites of a pack of hunting hounds. My word, there's nothing like that hunger for establishing a man on the solid foundations of life! And then there was the simple, honest animal delight of sleep when we'd eaten our fill—sleep that amounted almost to a passion; and after that the waking in the golden, sweet-scented morning of a new day to live it all over again.

The day's work was enough for me—just the round of things I've told of. I didn't want anything more. But that didn't satisfy O'Brien. For him there was love besides—great love, magnificent love!

Such a commonplace word that is, if you use it for the commonplace, everyday, makeshift sort of sentiment between the common run of lukewarm men and women. Love! They don't know what it is. To them it doesn't seem to mean anything but a convenient way of suiting themselves to some of life's meanest needs. It's only once in a long, long while that you'll find a man who can be kindled into white fire by the sort of love that sets him with the gods on high. If I'm a judge, women of that make are just as rare. Maybe once in a lifetime, if you're lucky, do you stand a chance of seeing such a man and such a woman meet face to face.

THAT was what I saw, there in the camp. As I think of it, there's just one word that keeps coming back to me as the only fit one—flame. Even that doesn't make it clear. There's flame that smudges and blackens, and there's flame that cleanses and beautifies. The love I was looking at was beautiful.

The strength of it made O'Brien tireless. All day long he worked with the best of us, doing his full share of the roughest of the labor; but when the work was done, and the rest of us worn to the last shaking extremity of utter exhaustion, every fiber in him was quick with eagerness for what the evening at the camp would bring.

No great adventure, no impetuous wooing—nothing like that. Mostly they met only at the table in the mess-room, where all the workers in the motley crew, and old Bates, too, sat together for meals, and the few words they exchanged meant nothing in particular to us who listened. A tone, a quick meeting of eyes, a laugh, a flash of subtle understanding—those were all the signs of what was happening. It wasn't much. The old man was missing it altogether. It needed the sixth sense of a natural-born lover to discover what was going on. I knew! The high passion of it, held in a heroic sort of restraint, would send O'Brien to his bed singing. Sometimes, waking for a minute in the night, I'd see him sitting in the door of the bunkhouse with his pipe, brooding upon the woods at dusk, thinking his lover's thoughts. Oh, I knew! And when day came, there he'd be at his task again, laboring with limitless strength. And so it went on for a week. I fell to wondering how long it would be before the inevitable thing would happen.

We were making great headway with the mill sets. At the week's end the machinery from the factory was set on the railroad siding for us, and extra crews were put at the work of loading the engines and boilers for the saw rigs on the huge wagon gears that were to carry them to the woods sets. There'd have been work enough, and responsibility enough, if we could have kept the job wholly free from complications.

But trouble started for us. Old Bates had been chafing over the matter of the squatters on his lands. It didn't seem to me to be a proposition to agonize over. Here and there through the woods a poverty-stricken native had found a spot that pleased him, built a rude shack for his family, deadened the timber on a few acres and scratched round a little with a plow. I don't know what claim of title they had, maybe none at all; but there they were. Having so much, Bates might have let them stay.

But not that man! The sign of a greedy man is that his desires aren't according to his needs; he wants it all. The presence of the squatters was an affliction to Bates' soul. He couldn't rest until he had some of the sheriff's officers serving ejectment notices.

There wasn't any violent explosion over it. The natives hadn't a bit of powdery Irish temper; theirs was the punky sort of disposition that sulks and smolders and nurses its grudges in sullen secret till the time comes for striking swiftly in vengeance. That queer mood may lead you into the mistake of thinking you've got them cowed and beaten. Bates made that mistake. He held the poor chaps in thorough contempt.

THEN one evening O'Brien and I sat on the porch of the mess building smoking. Bates and his daughter were a little way off, under the trees, where the old man liked to go to enjoy his cigar while he loafed and reckoned up the day's work.

One of the natives came slouching out of the hills in the dusk. He was an old man, gaunt and gnarled and bearded, with small, fierce eyes hidden under a crag of shaggy brows. In the crook of one arm he carried a long-barreled home-made rifle. He singled out Bates, ignoring the girl. He held out to Bates a crumpled paper.

"Thish yere was fotched to me this mawnin'," he said dully. "The deputy, he tol' me hit was your doin'. I want you should tell me the meanin' of it."

Bates glanced at the notice.

"Oh, you're Hollis?" he said with that offensive insolence of his. "You're on our land. That's a notice to get off."

The old man stood staring.

"I hain't aimin' to move off," he said heavily.

Bates gave a scornful snort.

"Suit yourself. You'll move off or be moved when the time of the notice is up."

"I been livin' on that clearin' o' mine seven year," Hollis protested. "I bought that piece o' ground. Hit's mine."

"No, it isn't," Bates retorted. "We've got tax title to that land you're on. You'll have to quit."

HOLLIS stood irresolute, swinging his long rifle from one arm to the other. The girl got up from her seat beside her father, frightened. Just to make myself handy, I left the porch and walked toward them. I didn't know what the old codger might take a notion to do. But he seemed not yet ready for a fight. He stuffed the paper back in his pocket.

"I hain't aimin' to move off," he said again. "Nor hit won't be best for nobody to try movin' me."

That was all he had to say. He turned, and went ambling off up the hill trail. The girl's eyes caught mine, and she laughed nervously.

"Such a ferocious-looking man!" she said. "Are they as wicked as they look?"

"They couldn't be," I joked. "Wickedness doesn't go by looks, anyway. No man is any wickeder than he acts, if you get down to facts."

Bates grunted.

"They're a poor lot," he said in his stupid arrogance. "The spirit of cattle! We'll be rid of him and all his breed next week."

O'Brien had come up quietly behind me. His deep voice made a queer contrast to Bates' fat wheeze.

"They're not cattle," he said. "They have courage enough. They're fighters, but they fight woods-fashion, just as they have since their stock left Virginia. They can make things expensive for us, Mr. Bates. I've been wondering if it wouldn't be better to compromise. There are only a few of these squatters inside your lines."

"Compromise!" Bates spoke the word as if he were spitting out something nauseous. "Compromise what?"

"These fellows have their rights, in a way," O'Brien said gently.

"Rights? Rubbish!" Bates was getting angry. "Let me tell you, my man, nobody has any rights in this world that I'll recognize except the rights he's able to enforce by law against me. That's my code. It's the only code that I'll tolerate in my affairs."

I suppose he thought that would silence O'Brien. Most likely he was used to silencing folks merely by declaring what he would or wouldn't tolerate. Rich men get into that habit.

But O'Brien laughed lightly.

"My code isn't like yours," he said. "When I'm in doubt about what's mine and what's the other fellow's, I just let him have it."

"Faugh!" Bates scoffed. "Nonsense! Childish!"

"I suppose it is," O'Brien agreed; "but it works."

"It's brought you to where you are, empty-handed," Bates argued.

"Yes, sir," O'Brien said. "But if I'm empty-handed, I've got nothing that anybody is coveting. That's a comfort."

IT WAS pretty bold talk, considering. The boldness of it or the rank heresy of it made Bates scowl in resentment.

"That's silly!" he snorted. "Nothing to it! There's just one real difference between a powerful man and a weakling: the powerful man knows how to accumulate the means of power—that's money—and the weakling doesn't. There you are! I haven't got mine by nursing any nice little quibbles. I get what I can and let the other fellow take it away from me if he can prove it's his. But he's got to do the proving."

Of course, he thought that was impregnable doctrine. He hadn't a doubt of it. But his daughter didn't think so. I was watching her while the debate went on. Her eyes were on O'Brien, searching him, looking him through and through—and approving him. She hadn't spoken a syllable. There was no need. It was clear as sunlight to me that she knew the difference between money and a man. Her eyes caught O'Brien's, and I saw the color go over her face in a living tide. O'Brien spoke to her then.

"This funny life is just a sort of witches caldron—'Bubble, bubble, toil and trouble.' My word, there oughtn't to be any such thing as trouble in a place like this. Look at it! We men must be a lot of sorry blunderers."

The talk had become uninteresting for Bates. He brought a memorandum book from his pocket and fell to his eternal figuring. I went back to the messhouse porch, and sat looking on while O'Brien and the girl loitered along the woods path in the half-dusk. The murmur of a word or a note of light laughter came to me now and then. O'Brien came back after a time in that state of mind that's reserved for Heaven's special favorites. Anything like disaster seemed just then a long way off.

But it broke upon us that night. It was midnight or later. I'd been sleeping the sleep of profound weariness—sunk miles deep in it. Then all at once I found myself sitting on the edge of my bunk, shocked, staring, wide-awake, shaking.

THROUGH one of those mysteries of the mind's lightning action I knew I had been waked by the roar of an explosion. Some of the other men were moving, crying out excitedly. O'Brien's voice spoke darkness:

"Dynamite! They're wrecking That must have been the nearest outfits, in Smoky Creek bottom. dressed, all of you who want to help."

Another mighty explosion came, and then a third, farther off. Somebody got a lamp burning. Half a dozen of us were scrambling into our clothes. Outside the bunkhouse the camp was roused. We heard old Peter Bates clamoring anxiously, demanding to be told what the matter was. For all his importance his voice sounded shaky and oddly futile. We hurried as fast as we could, and got outside, half-clothed and carrying whatever arms we could find. O'Brien didn't wait for orders from Bates, but took us to the creek road, where one of the wagon crews had halted for the night with its loads of equipment for one of the sawmills.

It was a pretty mess we found there. A heavy charge of dynamite had been exploded in one of the tubes of the big boiler, making a ruin of it; every tube in it would have been wrenched by the strain, loosened in the boiler head. Even if the plates had held, repairs couldn't be made in the woods; we'd have to send the boiler back to the shops. And the hillmen hadn't stopped with that. They'd poured a strong acid

[CONTINUED ON PAGE 18]

They Knew What They Wanted—And They Got It

Gertrude and Agnes Sanderson, of Little River, Kansas, who raised muskmelons to start a school fund, then finished high school in two years. Gertrude is on the left. Agnes is the larger

MUSKMELONS paved the way for the education of two Kansas girls, Gertrude and Agnes Sanderson of Little River. Much illness in the family had brought financial reverses to the family, but Gertrude and Agnes wanted to finish high school. Muskmelons started their little capital, which, wisely invested, swelled to a real school fund. They started to high school a year ago last fall. Next spring they will finish—just two years.

It happened this way: Mr. Sanderson told his daughters he would help them all he could toward getting a school fund. The year Agnes raised muskmelons Gertrude "worked out." Together they netted $25 that year. With her part of the money Agnes bought three shotes at weaning time. Gertrude put her share into a similar investment. She bought three tiny pigs and their mother. Mr. Sanderson fed the hogs out for the girls, and with the money from their sale they bought a cow and a calf and a six-months-old heifer, paying $70 for the three. The following year they bought another cow.

In the meantime they had heard of the home-study work offered by the agricultural college. While helping their father in the field or their mother in the house, the girls were able to put odd moments into their studies. The first year of home-study work they worked out two credits.

The following fall they started to high school, but kept up their home study. Besides the high-school credits completed that year, they succeeded in completing home-study work that gave them six and a half more credits. Last summer and fall they completed two more.

It has not been very easy to finish high school in two years.

"We study early and late," they wrote to one of the college instructors not long ago, "and we find our work hard. But now that we can look back on the hardest part, there is this consolation: Real, self-earned education beats all the sugar-coated kind you could get together."

Young folks who show this spirit usually grow up to do other real, worthwhile things in the game of life.

How I Increased My Farm Profits by Advertising

Prize Contest Letters by Farm and Fireside Readers

First Prize—Won by G. H. Dacy, District of Columbia

WHEN hog prices dropped out of proportion to the decline in feed costs and production expenses, I thought I was in for a loss, as my sows had just farrowed and my A-shaped houses were filled with squealing pigs. Then the idea occurred to me to try out a new method of marketing—to advertise and specialize in the sale of six-weeks-old pigs. I figured that the costs of producing the porkers to this age were practically negligible, as the sows attended to the early development of their lusty families. Furthermore, I had a hunch that there would be a demand for baby porkers, especially among those farmers who did not keep any hogs, but who made an annual practice of buying pigs and fattening them for the family meat supply.

I placed a two-line classified advertisement in the leading agricultural publication of my State, offering pigs at $7.50 a pair, shipped C. O. D. This advertisement cost me 75 cents, and resulted in the sale of $180 worth of pigs. The fact that I would ship the pigs C. O. D., which allowed each purchaser to inspect his animals before paying for them, aided materially in increasing the number of orders I received. I devoted the profits of this venture to the purchase of a better purebred boar, so that, ultimately, I will be able to ask higher prices for potential pig crops on account of their improved type and quality. I have kept a record of all the original purchasers, and whenever I have more pigs to offer I send them a post card stating the price of the pigs and how many I have for sale. I have ascertained that the personal post card as a supplement to the inexpensive advertisements in the farm papers of my section is fruitful in accomplishing livestock sales.

Hog-raising is a side line to dairying on my farm. I market sanitary raw milk in one of the best market milk cities in the country. The market price of whole milk is so high that I have found it is more profitable for me to sell my calves when a few days old rather than attempt to raise or fatten the youngsters for veal. Here, again, I utilize farm publications in getting in touch with farmers who desire to buy good grade Holstein or Guernsey calves. I also ship these calves C. O. D. on approval, and, previously, I submit pictures of the calf, its dam and sire, if the inquirer desires. I have found my camera to be of particular value in assisting me to make livestock sales. The expense is only about ten cents a picture, and repeatedly these dime photographs have effected sales of full-age cows as well as young heifers which I have raised.

My experience has been that the small classified advertisements are best adapted for the purposes of the dairymen or general farmer. Of course, the breeder of plutocratic, pedigreed stock must advertise more extensively and employ display "ads," practice "follow-up," and resort to public, catalogued sales to dispose of his surplus. The chief concern of the general farmer should be to make his advertisement simple, truthful, complete, and up-to-date.

The first thing I did after buying my farm was to hold a christening. I named the place Locust Lawn Farm, and thenceforward I made prominent display of this name on all my letterheads, post cards, and farm-paper advertisements. At the farm entrance I built a simple and inexpensive bulletin board. At the top of this board is the name of the farm, and below there is space for notices concerning the pigs, heifers, calves, or soy bean, corn, wheat, or rye seed which I have for sale. The county road passes the gate, so that this wayside advertising scheme aids in selling considerable stock and seed. I make a special point of answering all correspondence promptly—a matter which many farmers neglect—and, for speed and legibility purposes, I always use a typewriter. Right now my daily mail is replete with requests for young pigs and shotes. I suggest the practicability of other farmers engaging in this angle of the pork-producing game.

Poultry Advertising Paid

Second Prize—Won by James H. Sedgwick
R. F. D. No. 4, Peoria, Illinois

ADVERTISING is a boon to the poultryman. For several years I had been raising chickens in a small way as a sort of side line. Fancy table eggs were my specialty, and so I bred my birds for heavy egg production. I practiced a system of culling which effectively eliminated the slackers, and it was not long before I had built up a very productive strain of Leghorns.

One day a neighbor bought a hundred of my eggs, and hatched them out in her incubator. The pullets which she raised from these eggs turned out to be wonderful layers and she was delighted with them. This gave me the idea of selling my eggs for hatching instead of for eating.

Accordingly I began to place advertisements in the classified columns of the newspapers in a nearby city. It soon became apparent that these small "want ads" were paying for themselves many times over. Not only was I able to sell my eggs for hatching at three times what they brought as market eggs, but with the help of these ads I sold my surplus cockerels for breeding purposes at $3 each, instead of the 18 cents a pound that I had received at the butcher's.

Then I began using small ads in farm papers and poultry journals with wide circulations. Much to my delight, these brought me inquiries from all parts of the United States, and even from foreign countries. Inquiries were promptly answered with neat, typewritten letters. Many orders resulted, and my Leghorns made new friends in various parts of the country.

Display ads in carefully selected magazines were tried next, with splendid results. A neat booklet describing the birds and giving prices of eggs and stock was printed, and a copy sent to all inquirers. In getting up this booklet it was my aim to tell about my birds in a clear and concise form. The reading matter was broken up into separate paragraphs, each with a heading in black type. A few pictures were put in to help break up the reading matter and add to the attractiveness of the booklet. Many poultry catalogues are never read because page after page of solid print stares at the prospective customer, until he becomes discouraged and gives up trying to wade through it.

Whenever a catalogue is sent to an inquirer, a personal letter accompanies it. The letter draws the attention of the reader to the catalogue in such a way as to make him want to read it. I have found that it is best to mail the letter and the catalogue separately.

I am now devoting practically my entire time to poultry-raising. Last year my orders for breeding cockerels exceeded the supply. This year bids fair to establish a record in the sale of hatching eggs and breeding stock. My side-line poultry venture is rapidly developing into a sizable business because I was fortunate enough to see the value of advertising.

"My Bees Did It"

Third Prize—Won by "Maud Muller"
Michigan

WHEN I first began keeping bees for profit, I found that the buying public was more or less prejudiced against strained honey. They thought it likely to be adulterated. So, while I had a good trade in comb honey, my sales for extracted or strained honey came slowly. Since the extracted honey could be produced in greater quantities than the comb, and also tended to cut down swarming materially, I concluded to specialize on the extracted if I could find a market. My experiences were both interesting and ludicrous, for I must needs educate my customers to the use of extracted honey, and convince them that it was equal to the evaporated nectar served to them in indigestible wax.

My apiary consisted of 50 colonies of bees at that time—all that I as a housewife could handle and look after with my housework. We lived close to a summer resort, and I looked with envy at the fancy prices our village grocer was asking for *my* honey. I resolved to have the middleman's profit myself, if I could honestly earn it. I filled the light buggy with a load of fine honey, hitched up old Dobbin, and started forth on a house-to-house canvass among the summer people. The comb honey in its nice white sections sold, as usual; but I returned home with almost all of the extracted left on my hands.

After considering ways and means, I made up my mind to have an advertising name as a trade mark for my honey, and conduct demonstrations in my apiary. Back I went to the resort, with a little fruit and vegetables added to my store of honey, and with my new trade name stamped on every box and package. As I sold I talked bees. I mentioned larvæ, queens, drones, bee peculiarities and customs, until I had the interest of my customers aroused, then I gave them a cordial invitation to visit my bees and study their habits at close range. They were waiting to be amused, so they speedily accepted, and came in auto loads to my yard.

I gave them gratuitous lessons in bee lore, then led them to my extracting house. They saw me take the full comb from the hive, eagerly watched while I uncapped the white wax and stood at attention while the honey was being thrown from the comb by centrifugal force. I had small glasses conveniently near, which I filled with the warm honey and presented each guest with a sample. Of course my name, address, and trade mark was on the glass. *I never sold at any demonstration*, although I sometimes took orders for fall shipments. Then I advertised in our local papers, and soon I was selling at retail all the strained honey my bees could produce. My product always matched the sample in flavor and purity, and my customers were satisfied. It certainly pays to advertise, and it pays also to have honest goods. It sometimes becomes necessary to prove our honesty; but when proved, one can have no better trade mark.

How a Trade Mark Helped

Fourth Prize—Won by Zada Campbell
R. F. D. No. 8, Seguin, Texas

MY HUSBAND died five years ago, and left me with four children to care for. We were living on a farm that was in good shape, yet it was [CONTINUED ON PAGE 25]

These two pretty girls are Katherine Sumner and Leone Carton, relatives of the man who owns this field

Photo by Lee McCrae

A Field of Loveliness

IT WOULD be difficult to decide which contributes most to the beauty of this scene, the loveliness of the setting or the pulchritude of the living models. Certainly, the two combined complete a picture that for rare essence of beauty is seldom equaled.

How would you like to be able to step out into a 40-acre field of asters in full bloom and to gather as many as your arms would hold? That is what Katherine Sumner and Leone Carton, part owners of the field pictured above, are doing. This field is part of 1,200 acres of flowers grown in different parts of California by Bodger and Sons of Del Monte, California. This firm is one of the largest flower-seed growers in the world. Nearby is a 200-acre field of sweet peas, adjoining that a large field of zinnias. There is a large field of petunias, and the odor from a field of violets is almost intoxicating.

We can hardly blame Californians for talking about their State, can we?

A. S. W.

Judging by the Size

Freddie (who has eaten too many green apples): "Golly! I wouldn't want to be him when I had the stumache."

The O'Brien

[CONTINUED FROM PAGE 16]

over the engine, drenching it on every cylinder rod and bearing. It would leak steam like an old teakettle. Besides, they'd slashed the roll of heavy driving belt to tatters, and done everything else they could manage in a hurry. The men of the wagon crews had slept through it all till the explosion came. They hadn't dreamed of the need for keeping watch.

Quickly O'Brien took account of the damage.

"They'll have played the same trick with the other outfits," he said. "We ought to have expected it. Mr. Bates will be pleased."

He wasn't, then. What we had to tell him when we got back to camp sent him into an apoplectic rage. No wonder. I think the worst of the experience for him was knowing that he'd come up against a situation where his money was absolutely worthless—just as it always is when men get down to the rock bottom of life. He'd been living in the stupid illusion that his millions made the beginning and the end of power, an impregnable buttress against any mischance. His loss in dollars by the wreckage hadn't been so great, but the offense against his swollen money vanity was hard to bear; it hurt him far worse than any physical injury.

"That old hellion who was here last night!" he stormed. "What was his name? Hollis! He made threats. He's at the bottom of this. We'll settle with that fellow!"

THERE was no more sleep for him that night. He insisted upon having O'Brien sit up with him till morning, nursing his fury, working himself up into a lovely state of mind. By breakfast time his bitterness against the old man Hollis had become an obsession. Nothing would do but to set off headlong for Hollis' place in the hills, to have it out with the old chap. It was Sunday morning. O'Brien tried to dissuade him.

"I think we'd better let it rest over today," O'Brien urged. "Our case will keep till to-morrow. We have no proofs. A day will give everyone a chance to cool down."

Cooling down was just what Bates didn't want. He'd gathered a passionate anger that had to have vent. No argument was of any use against him. When there was no help for it, O'Brien ordered some horses saddled. He came to me, laughing, where I stood under the trees talking with the girl, trying to reassure her.

"Casey," he said, "will you come? There'll be nothing bad come of it, please God; but I'd like to have the Irish along. You've a wheedling tongue in your head."

"Of course!" I said. The girl spoke then, quietly:

"Have you a horse for me? I'm going too."

"Oh, no!" O'Brien protested. "You mustn't. This is not for you."

She only laughed at him—a gay little laugh, but with a challenge in it.

"Do you fancy I'm going to stay here?" she said. "I sha'n't. I mean to go with you. I'm not used to being left out of things."

Their eyes met. I think O'Brien was glad. His voice had the note of singing that belonged to it when mind and heart were most aroused.

"It's just an errand of peace," he said, "though there's the making of a good fight in it. I love a good fight too. The hardest thing I do is to keep out of them. But we'll keep out this time if we can."

It was a great morning in the woods—oh, wonderful! We rode all together for a little way; and then somehow O'Brien and the girl fell behind. That was as it should be, though it left me to bear with old Peter's grouch alone. I didn't mind. I wasn't listening anyway. I was thinking of those two back of us on the trail. The perfection of the day seemed to have been exactly fashioned for great love-making. I was rejoicing with my friend; but I couldn't help feeling a queer little stab of hurt, remembering my own grotesque mockery of a face. It's not good for a man to feel that he's clear out of it.

Then O'Brien surprised me. After a little while I heard them riding fast to overtake us. When they came up, O'Brien rode alongside of me, catching at my horse's bridle, urging me to go with him, and we rode on ahead at a gallop, out of hearing. O'Brien spoke then—not to me, but as though he couldn't help himself.

"What is it I'm doing! Oh, I'm mad—mad!"

His handsome face was gray and pinched, drawn with the tension of his passion. My first wild guess was wrong. I thought he'd asked for love and had it denied him. But then I knew that was impossible, for I'd seen the girl's eyes; I knew well enough that she'd never be one to deny great love, no matter by what strange way it would come to her. I had to guess again, and that time I got it right. It was O'Brien who had drawn back, moved by God knows what crazy lover's judgment of unworthiness.

I held my tongue for a minute or two; but I had to say something before long.

"I know what's ailing you," I told him. "It's an old, old complaint. And there's only one cure that I know of. That's to believe in love. Don't you believe in it, O'Brien?"

He looked at me, startled, amazed. I suppose he thought I was crazy too. He gave a choking sort of laugh, deep in his throat.

"Believe in love?" he said after me. "Can you ask that of me? I don't believe in anything else. It's the whole faith of my life. Anything that's done for less than love's sake is badly done, and not worth the doing. That's what I believe."

"Then what's the trouble?" I asked. "What is it you've done?"

"Done?" he said. "It's nothing I've done. Right this minute I'm standing clean before God."

"There's only one thing left," I said. "Then it's money."

He drew a great sigh at that.

"It's not money," he told me. "Not the dollars. It's what the dollars might mean. You can understand. If it were only money—I've had my chances for making money; plenty of them. But I've passed them up, because I couldn't take them and come clean with the rest of what I wanted to keep. No, it's not just money."

He was looking far ahead on the trail, seeing nothing, struggling with himself.

"Listen, Casey," he said. "It's not easy. I wonder if you've ever thought of it like this. The best of a man's strength is in being able to control it. Do you know that? The greatest fighters are the ones who've learned when to keep from fighting. And sometimes the strongest desires a man knows are those he's got to master and keep down. It's true!"

I SUPPOSE I didn't get his full meaning then. What he said struck me as overwrought absurdity.

"That's too fine-drawn for me," I said, "I reckon you'll argue that the most ardent lovers are the men who carefully hold back from loving too much."

He had nothing to say to that, but let me go on with my talk when I got ready.

"I'll tell you one thing," I said after a while. "If it ever happens that love like this is offered to me just for the taking, angels nor devils won't be able to keep me from taking it. Now you hear me! There's no false humility that's ever going to hold me back. I'm going to take it. Out of all this world's mess, love's the only thing that's worth taking. And you'd pass it up!"

I couldn't have hit him harder. He looked at me like a hurt animal.

"Don't!" he said. "Don't!" He caught up his bridle rein and plunged ahead alone. I let him go. I couldn't help him.

He was waiting for us at the next crossing of the trails, and when we caught up with him he went straight to business with old Peter.

"Hollis lives just a little way above here," he said. "I know the place. I know him too, Mr. Bates. He'll not be in the best of tempers."

THE old man paid no attention to that. He and O'Brien rode a little way ahead, abreast. I had the girl to take care of. She wouldn't stay behind, though I tried to make her. And so we came in sight of Hollis' home.

Poor enough it was—a mere hovel of rough-hewn logs with a crumbling chimney of mud and sticks running up one wall. The dooryard was a hopeless unkempt tangle. Some hounds set up a baying, and the old man came to the door, peering down the trail. He stepped back into the house, then came slouching down the path to the gate, carrying his long rifle.

O'Brien called to him.

"All right, Hollis! We've just come for a bit of a talk."

Hollis answered by stepping behind one of the high gate posts, laying his rifle across its top.

"You-all stop right thar whar you be!" he ordered. It didn't sound very menacing; his voice was at the listless dead-level of all those woodsmen's voices, even when their feelings are at the highest tension. Maybe that listlessness deceived old Peter, or maybe the old chap was really game. Anyway, he didn't hesitate, but rode straight on. I saw Hollis' rifle swing and steady at the fine mark old Peter made. I felt it in my bones that he meant to shoot. In a panic I clutched the bridle rein of the girl's horse, trying to force her from the trail and out of range. And then, swift as one of the flashing movements of the cinema, I saw O'Brien lunge ahead and throw himself squarely across old Peter's path, covering him, just in the right moment of time to catch Hollis' bullet in his own body. He rocked in his saddle, tried to steady himself, then sagged down heavily over the horn.

You don't remember things clearly after the shock of an experience like that. I was at O'Brien's side in a few seconds, supporting him, trying to find his hurt, trying to make him speak. The girl was there too, standing with him, silent, her eyes flaming. O'Brien tried to smile at her for reassurance, but he made a poor failure of it. Old

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She took her place beside O'Brien's bed, bending over, lifting his hand gently, holding it between her own

My Tractor Bugaboos, and How I Overcome Them

By Daniel Prowant, an Ohio Farmer

It is a real joy to drive a tractor when everything is working smoothly; when things go wrong, expenses and indignation mount high. Mr. Prowant, a tractor farmer of Continental, Ohio, tells, in this article, how he keeps his repair bills down

MY NOT inconsiderable experience with tractors has taught me that the cooling system is of considerable importance, requiring more care than the average person would suppose. I have had my share of troubles due to poor circulation. In hot weather I find my tractor is especially apt to overheat, and if it is not looked into at once there is liable to be serious trouble later. Most tractor overheating is due to carelessness at some time or other, the results of which often do not show immediately.

I have used both types of radiators on farm tractors, and I find that while the honeycomb type will cool more effectively than the pipe system, so long as they are kept in good working order, honeycomb radiators get out of order easier. The reason for this is that most water contains limestone or other minerals which are crystallized by the heat. The surface through which the water passes in a honeycomb radiator being much smaller than in the other type, sediment will lodge much sooner, causing clogging. As a preventive against clogging I find that soft water is much better than well water for tractor use. Ditch or river water should not be used under any circumstances, as it always contains sediment.

A funnel used in handling lubricants should never be used to fill the radiator. It is certain to carry oil in with the water, which will form a thin film all over the cooling surface. This film will catch and hold any sediment that is in the water, and clogging is then well started.

I also want to caution against putting bran, corn meal, or other foreign substances into the radiator to seal up small leaks. This practice, while it may serve the purpose for a short time, paves the way for expensive repair bills later. A great many of the so-called radiator-repairing fluids and powders are but little better. When anything of this nature must be used, shave up fine a bar of coarse laundry soap, and put it into the radiator. This will stop small leaks in a few hours, but for a radiator of the honeycomb type I do not recommend this method. The best way is to locate the leaks and have them soldered. After the radiator once becomes thoroughly clogged there is little to do but to take it to an expert cleaner. This is usually quite expensive, but it is cheaper than buying a new one.

THERE are many other things that will cause overheating on most tractors besides poor circulation. But if the cause is not removed at once, bad circulation will result later, owing to the fact that boiling crystallizes any minerals in the water. For this reason the radiator should never be permitted to boil if it is possible to avoid it. The radiator should be kept full at all times, as there is no more cooling surface on the average tractor than is absolutely necessary. Keeping the fan belt tight will help, too.

One of the worst things to cause overheating is a slipping clutch. This can be recognized by a slowing up in the traction, the speed of the motor remaining unchanged. When this occurs, stop the motor at once and tighten up the clutch. Too much, too little, or improper grades of lubricating oil often cause overheating. You can detect this by the smell and by the unusual amount of smoke. Lubrication trouble must be corrected at once to avoid damage to the motor. Bad valve settings will cause heating and loss of power, and are indicated by a peculiar open sound of the explosions, and by blue smoke being blown back through the carburetor. By taking off the cylinder head, grinding the valves thoroughly, and removing any carbon deposits, this trouble can be corrected.

Faulty ignition causes overheating at times. This may be due to a number of causes—broken or defective spark plugs, poor wiring, short circuits, and improper timing being the worst offenders. Ignition trouble should be remedied at once, as it will not get any better by neglect, and may cause much expense later.

Any type of tractor or motor with which I have had experience will deliver its maximum power only so long as it is kept properly cooled; and while many of these troubles named do not directly affect the cooling system, they will do so in time if neglected. With the present cost of operating a tractor I find it difficult to do so profitably, unless the repair costs are kept down to a minimum.

Before You Buy Stocks

[CONTINUED FROM PAGE 13]

these Eastern brokers to "unload" a large block of this stock on unsuspecting investors in the cities covered by their organization—and this they did. They sold $250,000 worth, while Jackson and his crew sold $250,000 worth of what turned out to be good-for-nothing stock of the Pennville Tractor and Track Company.

Several bankers warned people against investing in this company, and Parkhurst did also, but only a few would listen to their advice.

Parkhurst's arguments against the project were these:

1. A farmer is not an expert manufacturer, and he should not invest in any manufacturing proposition until it has passed the experiment stage.
2. The bankers advised against it, and who could judge better than they?
3. This company showed nothing tangible to work on. It was a speculation and a gamble.

Six weeks later some of the stockholders asked the Court to appoint a receiver. To-day the company is in bankruptcy. This was the fate of the Pennville Tractor and Truck Company.

It is said that more than $600,000,000 was lost during 1920 by small investors in the United States through worthless promotions of various kinds. The farmers are in for their share. A well-known packing-house promotion was "visited" upon the farmers of the Upper Mississippi region last summer, and resulted in a loss of several million dollars.

There are more than 30,000 defunct and practically worthless issues of stocks and bonds held by the public which will probably never pay a dividend. There are the glass-casket promotions which have been favorites for widows with money to invest. There are the pineapple promotions, the Florida corporations, the irrigation projects, and hundreds of others—some with land under water and some with land above water.

Oil and mining stocks have always been favorites in getting people to part with their money. More than $200,000,000 was lost during 1920 on worthless oil promotions alone. It is reported that, in 1917, Oklahoma, as an example, produced $1 worth of oil for every $555 capitalization in oil companies in that State. What chance has a farmer or any other outsider if he invests in an oil proposition such as the following, which is quoted from a book on investments:

Fraudulent Multiplication of Oil-Well Companies

The promoters purchase one sixteenth of an acre and organize four companies, each company owning one quarter of the one-sixteenth of an acre. At the center of this plot, where the properties of the four companies join, a well is drilled, each company owning one fourth of the well.

They proceed to issue certificates of stock, and declare that they are now actively drilling on their property. If this one well strikes oil, all four companies notify their stockholders that they have struck oil. Of course, when a well does not strike oil the four companies stop business, and the promoter moves to another one sixteenth of an acre to organize four more companies.

Many state governments have realized the necessity of protecting the public against fraudulent and worthless promotions. To do this, Blue Sky laws have been passed. Kansas was the first State to enact a Blue Sky law in 1910, and since then almost forty other States have followed her lead in this respect. A Blue Sky commission is something like a board of health—to keep the state quarantined against unhealthy propositions. But unless the promoters are actually misrepresenting the facts and deceiving the public, they can use the United States mail to sell stocks between one State and another, as we have no national Blue Sky law or investment commission.

NOBODY wants to be told what to buy and what not to buy, but farmers, the same as other investors, would appreciate being tipped off to the things that are mere "possibilities." The solution is to ask someone who knows, and not invest in anything unless it is recommended by someone qualified to advise. Full information is absolutely essential.

For the average person of small means and no particular investment experience, Liberty bonds and a bank account offer the safest and surest means of taking care of one's savings. Let the bank account serve as the reservoir of savings; by drawing from this, one can safely invest in Liberty bonds or other conservative investments. Don't forget the importance of sound financial advice in all matters of investments.

Eighty moons would be required to make one earth. A player there could throw a ball six times as far as it can be thrown on American diamonds. A man weighing 150 pounds there would weigh 900 on the earth. The earth receives as much light and heat from the sun in thirteen seconds as it gets from the moon in a whole year.

New Farm Bulletins You Might Find Useful

I KNOW you don't have much time to read during the busy summer months, but here are some bulletins that I believe you can use in solving your farm problems. They are, for the most part, practical, to the point, and easy to read. It is a good idea to order them now, because the supply available for distribution is often used up within a few months. The ones listed below are issued by the U. S. Department of Agriculture. Space limitations prevent descriptions of the valuable state bulletins published. You can obtain lists of these by writing to your agricultural college or experiment station.

THE following bulletins were selected from the large number we receive every month because they are for the practical farmer. They can be had free, excepting those otherwise marked, by checking the ones you want and mailing this list to your congressman or to the Division of Publications, U. S. Department of Agriculture, Washington, D. C. It is better to ask your congressman, because congressmen receive a larger supply for distribution than do the other offices.

Monthly List of Publications. This circular, issued monthly, describes all the new publications of the Department of Agriculture. It will be sent regularly to all who apply for it.

Coöperative Grain Marketing. Bulletin No. 937. This is a history of the coöperative grain-marketing movement in America. The different methods of handling grain by farmers' organizations are also described. Price, 5 cents; from Superintendent of Documents, Government Printing Office, Washington, D. C.

Dockage Under the Federal Wheat Grades. Farmers' Bulletin 1118. Dockage often greatly reduces the selling price of your wheat. If you want to know how this system works send for this pamphlet.

Raising Sheep on Temporary Pastures. Farmers' Bulletin 1181. Use of cultivated pastures such as rye or rape enables the sheepman to handle sheep in much the same way as hogs and cattle. It also prevents parasites. Different pasture methods are described in this treatise.

Unit Requirements for Producing Market Milk in Vermont. Bulletin No. 923. One of a series of studies begun in 1915. It describes methods of feeding and handling together with cost charts. Of special interest to New England dairymen. Cost, 5 cents; from Superintendent of Documents.

Growing and Planting Hardwood Seedlings on the Farm. Farmers' Bulletin 1123. Describes simple methods of planting and caring for hardwood trees on the farm. Also tells how to collect and care for the seed.

Culling for Eggs and Market. Farmers' Bulletin 1112. Written in simple terms for the poultry beginner, and especially for members of boys' and girls' poultry clubs.

The Beet Leaf Beetle and Its Control. Farmers' Bulletin 1193. This insect is a menace to the sugar-beet industry of the Rocky Mountain States. How to recognize and control it is told.

Standard Containers for Fruits and Vegetables. Farmers' Bulletin 1196. Federal standards of baskets and other containers are now in force. The new containers simplify shipping and marketing. If you are a shipper of produce this bulletin is a necessity.

How to Grow an Acre of Potatoes. Farmers' Bulletin 1190. Although designed primarily for boys' and girls' club members, helpful hints will be found by the experienced grower.

Clover Stem Borer as an Alfalfa Pest. Bulletin No. 889. This pest has recently become serious in Southwestern semi-arid and irrigated regions. Tells how to recognize and control it.

Handling Spinach for Long-Distance Shipment. Farmers' Bulletin 1189. Spinach is now an important winter crop in Southern trucking regions. Proper methods of handling are described.

The Process of Ripening in the Tomato Considered Especially from the Commercial Standpoint. Bulletin No. 859. A valuable treatise from the standpoint of the commercial tomato grower, and especially the Florida shipper.

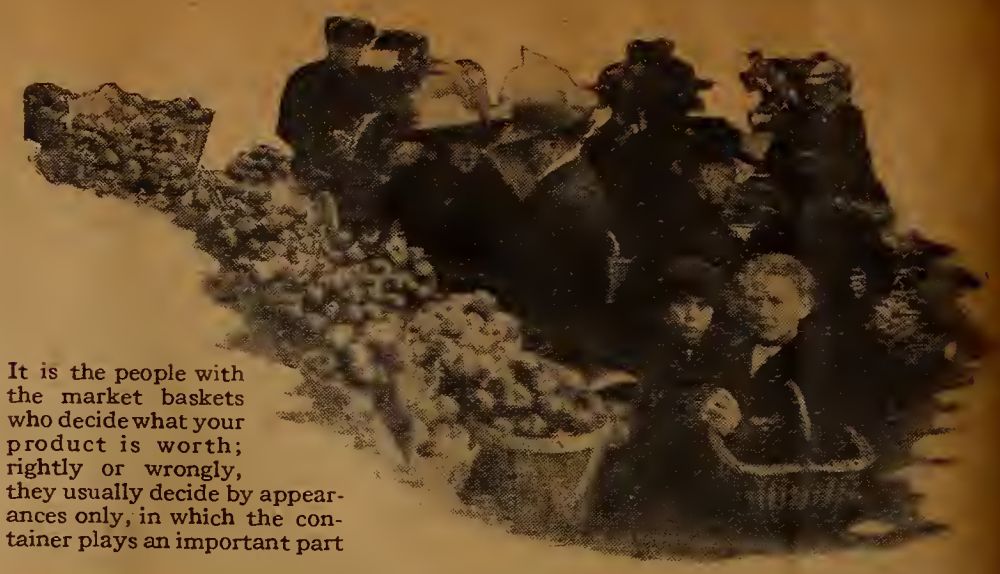
Who doesn't like home-made pickles? The time for making them will soon be here. In *Farmers' Bulletin 1159* recipes are given for making all kinds, from cucumbers to sauerkraut.

Pack Right for Top Prices

Containers adapted to your crop will bring full value for what you grow

By F. F. Rockwell

Corresponding Editor of Farm and Fireside



It is the people with the market baskets who decide what your product is worth; rightly or wrongly, they usually decide by appearances only, in which the container plays an important part

WHEN I first started market gardening I considered any money spent for containers a dead loss. I sold locally, and bargained with every dealer to whom I sold, to save boxes, barrels, crates, baskets, and bags in which to handle my products. In those days I wouldn't have considered buying a container of any kind, any more than the fellows who set out the first orchards, which are now being cut down for tool handles and fire wood, would have considered spraying their trees.

But, as I learned later, the money I was saving on containers was lost, two or three times over, in other ways. Now, if I were starting over again, I would figure on containers as a part of the cost of making a crop, just as I would figure fertilizer or spraying expense; for I know from experience that clean, new, bright containers of the right kind for the crop and the market help get more money for a crop.

Of course, the big grower and the one-crop specialist have to buy new packages for shipping their stuff to market. But there are thousands of small growers who, year after year, keep on making the same mistake I made—the mistake of failing to recognize that every dollar spent on containers will come back with big interest. Even first-class stuff, properly graded, will not fetch top prices unless you put it out in clean, attractive packages of the right kind. And don't forget that this applies to your local market as well as to the big distributing centers.

But how do you tell what kind of a container to use for any crop? There are several ways of getting a line on this: First, study the market reports in your farm papers, in your small-town daily or weekly, and in the big city dailies. These reports mention the type of package, such as, for instance: Peaches—Bushel baskets, 16-qt. baskets, Georgia carriers. Onions—100 lb. sacks, Texas crates. Potatoes—Bulk.

By applying to the Bureau of Markets, Department of Agriculture, Washington, D. C., you can get, without cost, a daily market sheet covering any crop or crops in which you may be interested. This, too, will give you information about the kinds of packages used in different sections.

Then you can carefully observe the containers or packages for different fruits or vegetables that come into your own markets.

While there is not space in this article to describe all the available containers, we can take a general look at a few to illustrate some of the things to follow when deciding how to "put up" your crop for market.

The first point to consider is whether the crop in question is of such a nature as to be benefited by abundant ventilation. Most vegetables that consist of fruits or leaves will quickly spoil when the free circulation of the air is cut off. Take tomatoes, for instance: When I first began to grow them I put them in tight boxes that held about a bushel. Although they were sold in nearby markets, the few hours in the boxes spoiled a good many hundred pounds of fruit during the two seasons before the cause was realized. After that we used slatted crates; but these were objectionable because the sharp edges cut and bruised many tomatoes. Then we tried the Texas style onion crate, with its rounded slats, and found it a big improvement.

For the fancy extra-early fruit we made thin partitions, to slip in lengthwise through the middle of the crates, to prevent the tomatoes on top from resting on those in the bottom. The result was that every fruit reached its destination in perfect condition. That meant quick sales for the dealer who handled them; consequently, a preference for our stuff when the supply was plentiful, and better prices when it was scarce.

SO YOU see it does pay to watch the container end of the business. Of course, each grower must work out what will best suit his own needs.

Of course, where tomatoes are grown in large quantities for shipping or for canning, baskets are used. Baskets are, on the whole, for the general run of vegetables and fruits the most convenient and the most economical containers.

Where possible, it is best to pack one's product in small containers that will go to the consumer as a package. This may involve the expense of several times as much money for containers as would be required for shipping the same product in bulk, in baskets, or barrels. But the extra price received will almost invariably pay any additional cost several times over. More important, it gives you a chance to build up a name with the people who use your products. This is a cumulative asset that will be worth hundreds of dollars as time goes on.

I found that a simple printed card with trade mark, and a word about quality and location of farm, placed in the bottom of peach baskets, brought enough new trade direct to the orchard, the first season, to pay the printing bill ten times over. And all these visitor customers would thereafter ask for "C. V.—Ripened-on-the-tree" peaches, whenever they bought from their local dealers.

THERE are two baskets which gardeners and fruit growers who sell locally could use to advantage, much more than is now the case. The first of these is the "5-8" splint basket used so largely in the vegetable-growing sections of New Jersey, for both vegetables and fruit. The other is the "pony" peach basket, which, for such vegetables as are often bought in considerable quantity, especially in the canning season makes an ideal package for the customer to take home.

In the suggestion above I have had in mind mostly the grower who disposes of his product in nearby markets. The specialist who expects to produce in quantities large enough to sell on the general market must pack to conform to the market, if he would succeed. If you are new at the game or going into a new product, you would do well to get in touch with one of the big marketing organizations, and learn just how to put up your product. These organizations are ready and glad to help any newcomer. As an instance of how anxious they are to help, the North American Fruit Exchange, the distributors of the famous "Skookum" apples, secured one of the best men in the Bureau of Markets at Washington to take charge of this educational work.

In conclusion, I want to repeat that my experience shows that the small grower who thinks he is going to save money by using only second-hand containers, and who fails to put up such of his products as he can in "carry-home" packages, is on the wrong road. The way to get bigger profits from what you grow is not by putting a few less pennies into it, but by getting a lot more pennies out of it. You can often make a profit of 100 to 500 per cent on the actual cost of your containers.

Better Farm Babies

I AM enclosing my Better Baby's card, also 50 cents in stamps for the Mothers' Club fee. I am very late sending in the card, and I hope you will not think I am ungrateful, for I am not. I have derived worlds of pleasure, comfort, and knowledge from the letters. I want also to tell you how thankful I am for the little booklet you sent in the last letter. It gave me just the information I needed.

Bobbie B. is a darling. He weighs fifteen pounds now, which is splendid to think for having weighed only eight pounds when he was born.

I hope your bureau will stand forever, and grow better (if possible), also hope the time will soon come when every mother will be receiving your wonderful letters.

Mrs. H. F. M., Illinois.

ON APRIL 6, 1921, our boy was a year old, and he certainly is a Better Baby. I am enclosing his picture, taken the day before his birthday.

I was surely sorry to find that I had received my last letter, for they have been so much help. I am trying to bring him up right. Of course, he gets no candy or cake and no between-meal lunches. He is such a lively fellow. He has seven teeth, and tries to walk and crawl everywhere.

I am keeping all of your letters, as I value them very much. I wish that I might look forward to them each month during the next year also. Thank you again.

Mrs. A. N. P., Ohio.

Jesse James Powell, an Ohio Better Baby, doesn't want to seem too frivolous—hence the ghost of a smile—for when one gets to be all of a whole year old, and has seven honest-to-goodness teeth, dignity *must* be considered

21 Letters About Your Baby

And How You Can Get Them

THE EXPECTANT MOTHERS' CIRCLE: Any woman eligible may become a member, receiving each month a letter of advice on the care of herself and the preparation for her baby. Several practical little pamphlet circulars showing designs for maternity dresses and a common-sense layette are some of the helps sent with the letters. No matter at what period you enter, everything from the first month will be sent. No mention of the Better Babies Bureau is made on the envelopes in which the material is mailed. Enclose a self-addressed envelope with *Fifty Cents* in stamps, for postage, *and state what month you expect your baby.*

THE MOTHERS' CLUB: Every mother of young children is eligible. Pamphlets, together with monthly letters of instruction on the care and feeding of babies *under one year of age* (covering such subjects as colic, constipation, weaning, teething, etc.), will be sent to any mother who sends *Fifty Cents* in stamps and states the age of her baby. There are also leaflets giving diet lists, and other helps for babies from one year of age to three years. This literature is all included in the Mothers' Club's monthly service, but if the letters are not desired the additional literature will be sent for *Ten Cents.* A self-addressed stamped envelope will bring a prompt reply to every inquiry. Address all inquiries to

BETTER BABIES BUREAU

or to Mrs. Caroline French Benton, Counselor

FARM AND FIRESIDE 381 Fourth Avenue, New York City

A City That Helps Its Farmers

By Hugh J. Hughes

THERE is no friction or hard feelings between city folks and farmers in the city of Middletown, Ohio, and its surrounding community. For when a problem comes up that is of interest to both, they sit down together in the Chamber of Commerce and thresh it out. The farmers do not come in as visitors, either, for they belong to the Chamber *as a farmers' section of that organization.*

Middletown is a thriving Ohio city of some 20,000 people. It manufactures steel, paper, and tobacco. It is growing rapidly, and needs the support of the farming community surrounding it. Incidentally, the farmers need the town. Labor is with them a pressing problem, and the changes incident to the development of a rapidly growing city have made necessary the study of such matters as market gardening, milk production and supply, and the like. The farmer is not asked to come in and see the other fellows perform; he is permitted to, and expected to, do some performing himself. As a result, the farmer section is at present one hundred strong, made up of leading farmers. The farmers' section holds meetings very similar to those of the ordinary farmers' club.

As an instance of the manner in which the chamber operates, there was a demand on the part of the farmers for the betterment of the poultry in the neighborhood. They decided they wanted a poultry demonstrator from the college of agriculture to come down and work with them. Usually such requests come through the county agricultural agent. It happens that the county in which Middletown is located has no county agent. So the chamber applied for help from the extension division and it was secured.

THE agricultural section of the chamber gets the same attention that any other section of the chamber receives. There are dinners for the agricultural section, to which the wives, as well as the farmer members, are invited. The chamber works in close accord with the Red Cross, and the latter organization extends its work out over the country districts in the same manner as it covers the town.

In short, the Middletown idea is that there is no hard and fast line where the city ends and the country begins, but that all who are served by or contribute to the city are essentially one family, with like interests, varied only by their differing occupations and by the occupational problems that arise. And the beauty of it is that the plan works!

He Made $1470 by Draining

ABOUT fourteen years ago Mr. W. E. Merritt of Surry County, North Carolina, bought a farm at $55 per acre, two acres of which were under about six inches of water, and four acres so "sobbed" that they were worthless.

"I was told that it could not be drained, as land between swamp and stream was several feet higher," Mr. Merritt said. "It required a ditch 12 feet deep in places, and about 400 yards long. I placed eight-inch sewer pipe in this main ditch, which could only be 2½ feet below the land surface in the swamp. I laid four-inch tile as I thought it required. This drained land is the best I now have. Am harvesting corn more than 75 bushels to acre without fertilizer. Refused $300 per acre. Don't recall how much was the cost of this work, but it certainly was a splendid investment."

Extension Farm News.

We Were Losing Money

[CONTINUED FROM PAGE 15]

you were to walk into the bank and ask the banker how much you had on deposit. Then suppose your banker would say to you:

"Well I don't know. I have kept no account. You have been getting a little money now and then, and have been depositing a little whenever you could, and that is about all I know about it."

What would you think? And yet that is exactly what 99 per cent of us dairymen are doing. And we farmers in Missouri will feed and milk about 400,000 cows to-night and pay those cows for the happy privilege of doing so.

Are you one of that 99 per cent who don't know what their individual cows are doing? If so, what are you going to do about it? A cow-testing association will solve the problem.

Doubtless this story points as a dark picture the condition of the average dairyman at the present time.

There certainly never will be a great deal of profit in dairying for the type of man who will put up his corn as fodder because the wind blew his silo down, or who will ride for a week trying to find a $25 bull. But dairying does offer a good inducement to the man who will follow the right sort of practices. And for the average farmer the cow-testing association is the right sort of practice. We have proved that, right here in our own herds.

A Pasture Experiment

[CONTINUED FROM PAGE 4]

Canada thistle, is very troublesome. At Cockle Park experiments in the control of this thistle have consisted in cutting it at different times and by different methods, with the outcome that when the thistles were cut early in the season, when not more than four to six inches high, and again about three weeks later, they have been almost completely eradicated in two seasons, cutting with the mowing machine being almost as effective as with the hoe; whereas, if the cutting was delayed until August, thus giving the thistles time to mature their root stocks, there was very little reduction in their growth.

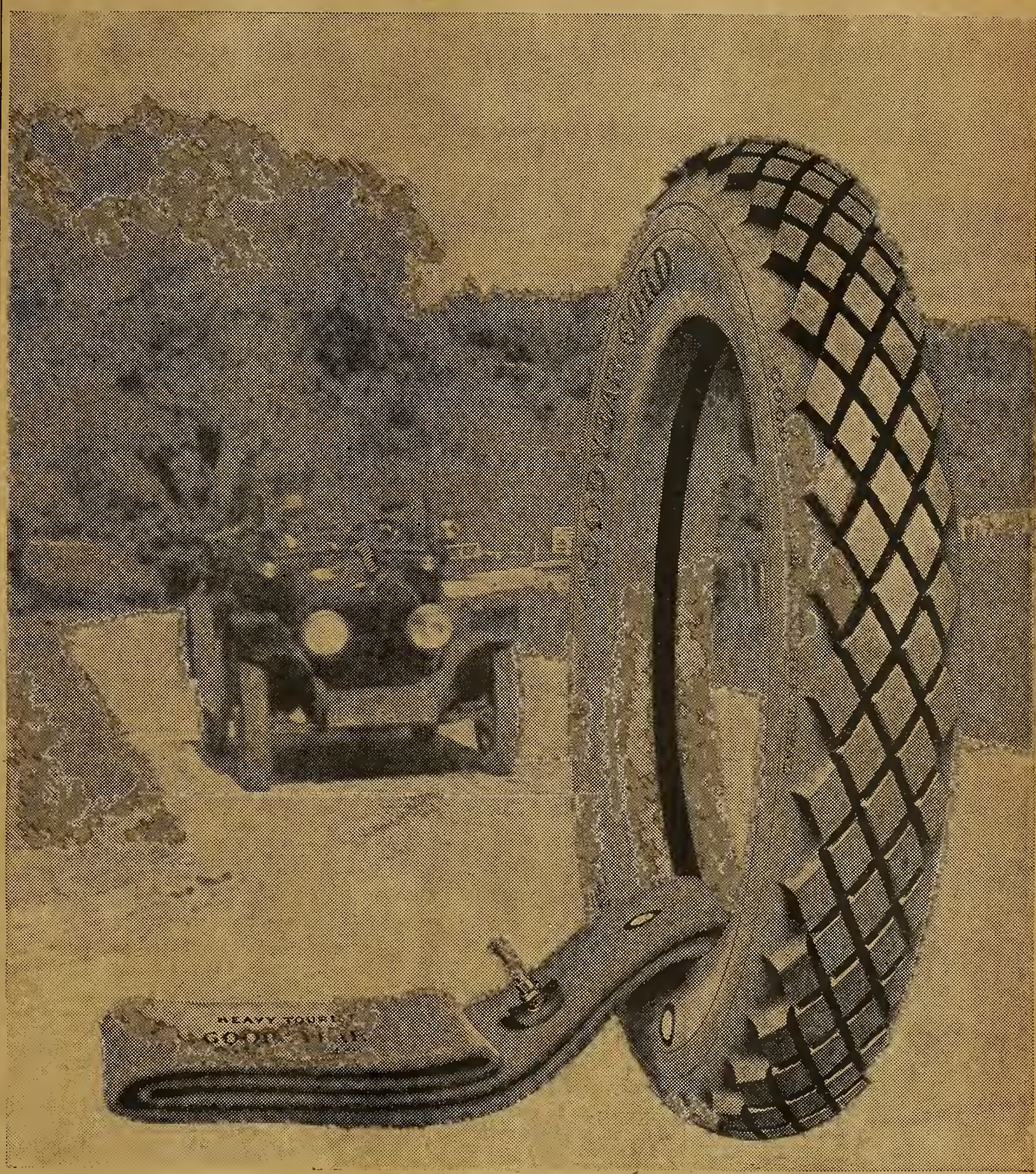
These pasture and meadow experiments very properly constitute the leading work at Cockle Park, but in addition to this work varietal and manurial experiments are being conducted with oats, barley, wheat, mangolds, turnips, and potatoes, and with small fruits, vegetables, and dwarf apples. Plant diseases are being studied, some work in forestry is under way, and feeding experiments are being conducted with cattle and sheep.

There are 25 Galloway cows on the farm, from which blue-gray calves are bred by the use of a white Shorthorn bull. A few Irish Shorthorn cows are also crossed with a Galloway bull, thus giving a comparison of the two crosses. The cows are on pasture all the year round, not even having a shelter shed, and the Galloways do remarkably well under this treatment.

He Ate It All!

"CROP failures?" asked the old-timer. "Yes, I've seen a few in my day. In 1854 the corn crop was almost nothing. We cooked some for dinner, and my father ate fourteen acres of corn at one meal."

GOODYEAR



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Donald T. Mayer—Valley City, Ohio

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The O'Brien

[CONTINUED FROM PAGE 18]

Hollis set his rifle against the rail fence and came shambling down the path to join us. He spoke to Peter Bates with an oddly futile simplicity.

"He hadn't ought to've done that. I wasn't wantin' him. It was you I was aimin' to git."

Bates took hold of things then.

"We'll have to get him to the camp. He can't ride back. We'll have to make a litter and carry him somehow. Janet, you ride ahead and send one of the men for a doctor. Ride!"

We had a hard time of it with O'Brien. Did you ever sit by and watch a strong man fighting for his very life with the outcome hanging by a mere spider's thread? That's what I watched then, for ten long days in that wilderness camp. I stayed with him because I loved him, but there was little enough I could do beyond waiting for whatever was to come. More than once—my soul, yes, a hundred times!—I thought we'd got to the end. Stooping over him I'd catch no faintest sound of the breath passing his lips; but then, as if the soul of him held to his body by the power of a very miracle, there'd come the lightest whisper, and I'd thank God for another brief respite.

I WAS his nurse, but I wasn't alone in the watching. Old Bates was kind, anxious to do all he was able. He wasn't forgetting the lumber business, though. It was his daughter who forgot everything else in the world but the man I tended. I don't know when she slept or found her own rest. Day or night, if I stepped outside the door of the room where O'Brien lay, there she'd be, anxious, distressed, getting thin and white as a ghost, waiting to question me. The Lord knows, it wasn't much I could tell her while those ten days lasted.

But then there came an afternoon when O'Brien's quiet seemed ominous. He'd hardly stirred since early morning, muttering a little now and then, and dropping back into profound lethargy. I didn't like it. But by and by he opened his eyes, looking straight at me. He knew me, too.

"Casey!" he whispered. "Good boy!" I don't know—" But that was as far as he could get before he sank back into heavy sleep.

I went out of doors, and there was the girl Janet hovering near. She came to me directly, as she always did.

"How is he?" she asked—the thousandth time she'd asked that question, just so.

I didn't try to answer. Instead, I made her sit down beside me on the edge of the porch.

"Listen!" I said. "There's got to be a little true talk between you and me. Tell me this: Do you think I'm an honest man?"

She looked at me straight with the very soul of her in her beautiful eyes. The look was answer enough to what I'd asked.

"Well, then, tell me this besides," I said: "Which is it, do you think, that makes the safest refuge for a woman in this world—is it money, or is it the love of a good man?"

THERE wasn't a word from her for a long minute while she searched me through and through. In her heart she knew what I was getting at. Of course she did! She didn't try to dodge me.

"I believe in love above everything else on earth," she said bravely.

"Then I'm talking as an honest man to an honest woman," I told her. "If that man in there could wake next to the sight of your face, with that light in your eyes as I'm seeing it now, it would mean more than life to him."

Oh! I'd give the heart out of my body and count it a royal bargain if, just once before I die, for ever so fleeting a moment I might see that radiance on the face of a true woman and know it was for me! She didn't hesitate. She stood up and gave me her hand.

"Will you come with me?" she asked.

She took her place beside O'Brien's bed, bending over, lifting his hand gently, holding it between her own. The touch roused him. If I'm a judge, it would have brought him back from the dead. For just a moment their eyes met and held; then she stooped closer, and with infinite tenderness touched his lips with hers.

"My dear!" she whispered. "Oh, my dear!"

I went outside then. The rest of it was none of my affair. A little way off I threw myself down beneath the trees and felt for my pipe.

"All right, Casey!" I said. "All right! Old Peter will be pleased—won't he? Oh, Old Peter be damned! And Hollis be damned! No—God bless Hollis! Casey, boy, you've got the face of an ape yourself, but you know what love is. There it is, in there, right now. Love! It's just the one everlasting proof we've got that God's in His heaven and all's well with the world. The only proof we've got! Do you know another, now?"

But I couldn't think of any other. I don't believe there is another.

[THE END]

This is Elizabeth Boyer, Schuylkill County, Pennsylvania, and her Holstein calf which she entered in her local calf club in 1920

Photo by courtesy of the States Relations Dept., U. S. Dept. of Agriculture.

How I Make Ice Cream

[CONTINUED FROM PAGE 14]

ice cream until it is time to serve it.

Flavoring plays an important part in the making of good ice cream. The cream mixture is overflavored, according to taste, before being frozen to be sufficiently flavored afterward.

By using numerous hot and cold sauces over plain ice creams I get an almost endless variety. Plain, caramel, and chocolate custards, when frozen, are delicious served with a topping of fruit syrup made by simmering the juice of stewed fruit and sugar together until a thick syrup is formed. Chopped nuts, candied cherries, and marshmallows may be sprinkled over the ice cream and sauce.

THERE are many other frozen desserts, but none of them contain so much nourishment as does the ice cream which contains milk, cream, and sometimes eggs. There is water ice made by freezing the juice of stewed fruit sweetened with sugar; when this is frozen to a mush-like consistency it is called frappé. They are appetizers. Sherbet is water ice to which gelatin or beaten egg white has been added, while parfait is plain ice cream, flavored as desired, into which whipped cream has been folded.

Here are tested recipes for Neapolitan and Philadelphia ice creams, and a few recipes for other ice creams and sauces which have been evolved in the FARM AND FIRESIDE kitchen:

NEAPOLITAN ICE CREAM

2 cups milk
1 cup cream
⅛ teaspoon salt
6 egg yolks
1 cup sugar
1 tablespoon vanilla

Scald milk, and pour slowly on the egg yolks, which have been beaten with the sugar, stirring constantly so the eggs will not cook, but blend with the hot milk. Place in a double boiler, and cook until the mixture coats the spoon. Strain into a bowl, chill, add cream, salt and vanilla, and freeze.

PHILADELPHIA ICE CREAM

4 cups cream
1 cup sugar
1 tablespoon vanilla
⅛ teaspoon salt

Mix all the ingredients, and freeze. Another way of combining the ingredients is as follows: Divide the cream into two equal portions. Scald one portion, add the sugar, and stir constantly. When this has cooled sufficiently, add the other half of the cream, beaten stiffly, the salt, and the vanilla. Freeze.

THE CHILDREN'S ICE CREAM

3 cups whole milk
1 egg or 2 egg yolks
⅛ teaspoon salt
1 teaspoon vanilla
½ cup sugar

Scald milk, and pour it over the e which has been beaten with sugar and sa Place in double boiler, and cook until m ture coats back of spoon. Strain, cool, a vanilla, and freeze.

CARAMEL CUSTARD ICE CREAM

2 cups milk
4 egg yolks or 2 eggs
½ cup sugar
½ cup sugar, caram ized
2 cups thin cream

Scald the milk, dissolve the caramel sugar in it; pour this over the egg, wh has been beaten with the other sugar. C in a double boiler until it coats the spo Strain, chill, and freeze. To carame sugar, stir it in a saucepan directly over t fire, without the addition of water, and s until it melts and turns a light-brown col

COCOA ICE CREAM

4 cups cream (thin)
1 cup sugar
⅛ teaspoon salt
1 tablespoon vanilla
4 tablespoons cocoa

Dissolve cocoa in a very small amount boiling water, add to cream, sugar, flav ing, and salt. Freeze.

CHOCOLATE SAUCE

1½ squares chocolate
1 cup sugar
½ cup water
⅛ teaspoon cream tartar
⅓ teaspoon vanilla

Boil sugar, water, and cream of tarta the consistency of thin syrup, and po over the melted chocolate. Cool slight and add vanilla.

HOT FUDGE SAUCE

2 squares chocolate
2 cups water
½ cup sugar
2 teaspoons cornstarch
1 tablespoon butte
2 tablespoons col water
1 teaspoon vanilla
⅛ teaspoon salt

Mix the grated chocolate, water, sugar, and cook until the sugar is dissol and the chocolate melted. Then add cornstarch, which is dissolved in the water and the butter. Boil three minu stirring constantly. Add sugar, salt, flavoring. Serve while warm, or cold, ice cream.

VANILLA SAUCE

1 cup boiling water
1 tablespoon cornstarch
½ cup sugar
1 teaspoon vanilla
2 tablespoons but

Blend butter and cornstarch and add water. Add sugar. Boil until it thick cool slightly, and add vanilla. Serve chocolate ice cream.

CARAMEL SAUCE

Make the same as vanilla sauce flavor with caramel syrup.

CARAMEL SYRUP

1 cup sugar
1 cup boiling wate

Caramelize sugar, and add to boi water. Boil to a thick syrup.

NELL B. NICHO

A Rest from the Separa

I'M SURE that, in spite of the welc cream check, all farmers' wives get of washing the separator. It is, perh not nearly so disagreeable a task as m others that we have to do, but I, for enjoy a respite from this rather bur some duty.

For some time we have been milking one cow, and it didn't seem to pay to the separator for so small an amount of yet I never feel that by hand skimm save all the cream. Then I discover splendid scheme. I have a rest from w ing the separator, and still I save al all of the rich yellow cream.

We strain the milk, as usual, into separator pan, then set in a cool place. pan is covered with a clean towel, to a the escape of animal heat and protect milk from dust. By evening or morni as the case may be, the cream is risen, the skim milk may be easily drained through the spout. It is very easy to t off the spout at the right moment when t milk is all out, and there you have alm every bit of your cream.

G. B. J., Wisconsin.

Your 4 Big Problems

[CONTINUED FROM PAGE 3]

"In 1917 only 350,000 section men and unskilled laborers cared for the nation's railway lines. In 1920 their number had gone up to 376,000. But while the pay rolls for these men in 1917 added up to $220,000,000, their pay rolls to-day amount per year to $476,000,000.

"The lines to-day employ thirty-eight such men for every thirty-five of three years ago, but the roads pay them to-day $24 for every $11 paid them in 1917.

"In 1917 the railroad offices used 184,000 clerks; at the end of 1920, with business about normal, the roads were using something under 239,000 clerks. The pay envelopes of these clerks contained in 1917 more than $189,000,000 a year; they are paid now at the rate of $399,000,000 per year. The roads now need 17 men to do about the same amount of work that 13 men did three years ago, but the public pays for practically the same service $19 now for every $9 then.

"In 1917, before government control, the entire pay roll of all the railroads in the country footed up to $1,739,482,142. That wage bill in 1920 had more than doubled, reaching a grand total of about $3,610,000,000. The 1921 pay roll is likely to go well over the two-billion mark."

One more of these statistical facts:

"In 1917 the railroads figured their total operating expenses at $2,860,000,000. Thus, it costs far more for wages alone to-day than the total expenses of operation three years ago."

This is an infinitesimal part of the "Herald's" survey, but it is sufficient to show that the railroad men should begin to take their losses the same as farmers and other business men. FARM AND FIRESIDE thinks that, to begin with, the Farm Bureau Federation is justified in asking Congress to repeal the guaranty rate provision, and instruct the Interstate Commerce Commission to make a radical readjustment of railroad rates.

FROM the time I can remember it seems that I have always heard the tariff discussed. My earliest recollections are that tariff—whatever it might be—was something odious, for it was ever the bone of contention between two inseparable companions—my grandfather and my uncle. One was a rabid high protectionist, while the other believed just as sincerely in free trade, and it is small wonder that as a little chap I came to hate the very term.

Well, the tariff, like the bad penny, is back with us. When the executive committee of the Farm Bureau met in Washington, Secretary of Agriculture Wallace summed up for them the entire situation in a brief manner. He said:

"As a result of the great debts of Europe it is evident that there is coming a severe strife between manufacturers in Europe and our own country. Both will seek to produce as cheaply as possible in order to win the trade. The first tendency on the part of American manufacturers will be to demand the cheapest possible food supply as a means of cutting the cost of production. The farmers of our surplus-producing States will be brought in direct competition with South America, Australia, and other food-producing nations. We must not let a temporary condition break down our American agriculture. The farmer must have adequate protection."

As far as the tariff is concerned, the Farm Bureau is urging, as this is written, treatment that will give you members a protective tariff upon farm products equivalent to the tariff upon products of the factory. No elusive shuffling of rate schedules or other methods will be countenanced that will tend to obscure this general principle. Also, it will see that Congress, in passing tariff legislation, keeps in mind that the primary factor in their final determination is the difference in cost of production between this and competing foreign countries.

The Farm Bureau Federation is to be commended on its statement that agriculture neither asks nor demands "special favors in the revision of the tariff, and will tolerate no unfair discrimination against it for the benefit of other branches of industry."

Taxes came in for a share of discussion during the meeting of the committee, and it went on record in saying that the Farm Bureau would oppose the suggested sales tax because it would shift the burden of taxation from the excess profits and income to a tax on such fundamentals as food, fuel, clothing, and shelter. President Harding's statement that "the country does not expect, nor will it approve, a shifting of the tax burdens" was highly commended.

DURING the financial stringency of the last year it has become increasingly evident that the farmer is not being adequately financed through the present system. Moreover, because of the slow turn-over of capital on the farm, the average farmer jeopardizes his welfare when he avails himself of short-time commercial credits. To improve this situation, the Farm Bureau Federation will urge legislation which will provide for the proper authorization for commodity (such as corn, wheat, cotton, etc.) financing based upon warehouse receipts; also for livestock financing based upon proper pledge, and for personal rural credits secured by definite insurance features.

In addition, it also will ask that the profits derived from the federal reserve banks be used to provide working capital for farmers between the time the requests for money are received and the sale of the bonds issued. It will be suggested that these bonds be made eligible for sale in the federal reserve banks or in the open market, and that the Federal Reserve Board be authorized so to classify rediscounts that farmers' money needs may be given the adequate consideration.

With reference to the Farm Loan Act, the federation will recommend legislation that will make it possible to increase the maximum loan from $10,000 to $25,000. It will urge, in addition, that all country banks join the Federal Reserve System.

As to constructive marketing legislation, no definite plans have been made. However, the grain-marketing plan as outlined by the Committee of Seventeen has aroused some powerful enemies, who, for business reasons, may introduce legislation that would nullify some of the important provisions of the plan. It is apparent that the Farm Bureau Federation will fight strenuously any such effort to kill the grain plan or the other marketing plans which are now under consideration.

The big points of the legislative program which have been briefly outlined in this article were not worked out overnight. The officers and executive com-

Hoover Says:

"I WISH to express my approval of the excellent work which the American Farm Bureau Federation is doing. It is conservative in its approach and gives confidence to the whole country. During the war we had extreme paternalism. The American Farm Bureau Federation comes from the people itself. Paternalism will destroy the basis of progress and growth if continued in peace times. This is a period of coöperation necessitating effective groups, and proper coöperation and coördination are needed between them."

Drawn by Morgan Steinmetz

Trade Mark
This Trade-mark identifies genuine Boss Work Gloves. Be sure it is on every pair you buy.

For Daily Use Around the Farm

In the course of a day's work, every farmer will find many uses for Boss Work Gloves. They are needed on dozens of jobs to protect the hands from dirt, grease and minor injuries.

It is convenient to hang one pair in the barn to clean out the stalls. Another pair in the machine-shop for all repair work. Keep a pair in the tool box of your car for changing tires and tinkering around the engine.

The strength and toughness of Boss Work Gloves insures long wear on rugged work. Yet they are so flexible that you get the free feel of finer jobs. Ask for Boss Work Gloves by name. They come in sizes for men and women, boys and girls, and in ribbed, band, and gauntlet wrists.

THE BOSS MEEDY—best quality, medium weight canton flannel.
THE BOSS HEVY—very best quality, heavy weight canton flannel.
THE BOSS XTRA HEVY—finest grade of extra heavy canton flannel.
THE BOSS WALLOPER—highest quality, heaviest weight canton flannel.
THE BOSS LETHERPOM—heavy canton flannel with tough leather on palms, fingers and thumbs.
THE BOSS JERZY—highest quality cotton jersey cloth in many colors.
THE BOSS TIKMIT—Roomy mittens made of ticking that wears like iron.
THE BOSS ELASTO—strong canton flannel. Made by a patented process in one weight only.

THE BOSS MANUFACTURING COMPANY
Kewanee, Ill.

BOSS WORK GLOVES

Keep your farm up to date. Make all replacements and improvements permanent and sanitary by using concrete made with Lehigh—the National Cement. It will pay you to talk it over with the nearest Lehigh dealer. You will know him by the blue and white Lehigh sign.

The National Cement

LEHIGH PORTLAND CEMENT COMPANY
ALLENTOWN, PA. CHICAGO, ILL. SPOKANE, WN.

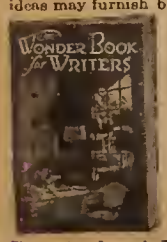
New York, N. Y.
Minneapolis, Minn.
Boston, Mass.
Newcastle, Pa.
Philadelphia, Pa.
Omaha, Neb.

Buffalo, N. Y.
Pittsburgh, Pa.
Jacksonville, Fla.
Mason City, Iowa
Kansas City, Mo.
Richmond, Va.

LEHIGH CEMENT

Why Don't YOU Write Stories?

Maybe you think you CAN'T write when you really CAN. Thousands of people of ordinary education who "didn't think they could," now write stories and photoplays in their spare time! Men and women everywhere are finding out it's as easy to learn story writing as it is arithmetic or grammar! And all these people formerly thought they had to be literary geniuses in order to WRITE! Lots of those thrilling movie plays you see—endless magazine stories you've read—were written by people LIKE YOURSELF, who took up writing simply because they liked it and *wanted to see if they could do it.* Why not find out if you, too, can write? How do you know you really can't? Your story or photoplay may have as much chance of greatness as those of any other author. Why not? It has happened before—time and time again. Often the unknown author springs to fame overnight. Don't hesitate because you have an ordinary education—that may be a HELP instead of a hindrance. Brilliant people have really done less in writing than the plainer, persistent ones who had common sense and determination. Listen! The Authors' Press, Auburn, N. Y., will send you, absolutely free, a beautifully illustrated book that shows how easily stories and plays are conceived, written, perfected, sold. How many who don't *dream* they can write, suddenly find it out. How bright men and women, without any special experience, learn to their own amazement that their simplest ideas may furnish brilliant plots for Plays and Stories. How one's own Imagination may provide an endless gold-mine of Ideas that bring Happy Success and handsome Cash Royalties. How to tell if you ARE a writer. How to WIN! This Wonderful Book is ABSOLUTELY FREE. No charge. No obligation. YOUR copy is waiting for you. Write for it NOW. Simply send your name and address—you're not BUYING anything, you're getting it ABSOLUTELY FREE. A book that may prove the Book of Your Destiny. A magic Book through which men and women, young and old, may learn to turn their spare hours into cash. Just address



The Authors' Press, Dept. 152, Auburn, N. Y.

$1000 Secures 157 Acres
with 10 cows, 2 horses, crops, harness, vehicles, machinery, etc.; prosperous section, convenient advantages; 100 acres machine-worked loam cut 1½ tons hay acre; 20-cow spring-watered, wire-fenced pasture; wood; apples, pears, plums, cherries, etc.; 7-room house, maple shaded lawn, 15-cow basement barn, etc.; owner's advanced age forcing sale, $4500 takes all, only $1000 down, easy terms. Details page 29 Illus. Catalog, 1100 Bargains, FREE.
STROUT FARM AGENCY, 928-HA, Marquette Bldg., Chicago, Ill.

World's Best Roofing
At Factory Prices

"Reo" Cluster Metal Shingles, V-Crimp, Corrugated, Standing Seam, Painted or Galvanized Roofings, Sidings, Wallboard, Paints, etc., direct to you at Rock-Bottom Factory Prices. Positively greatest offer ever made.

Edwards "Reo" Metal Shingles
cost less; outlast three ordinary roofs. No painting or repairs. Guaranteed rot, fire, rust, lightning proof.

Free Roofing Book
Get our wonderfully low prices and free samples. We sell direct to you and save you all in-between dealer's profits. Ask for Book No. 158.

LOW PRICED GARAGES
Lowest prices on Ready-Made Fire-Proof Steel Garages. Set up any place. Send postal for Garage Book, showing styles.
THE EDWARDS MFG. CO.
708-758 Pike St. Cincinnati, O.

FREE Samples & Roofing Book

ABSORBINE
TRADE MARK REG. PAT. OFF.

Removes **Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain;** Stops Spavin Lameness. Allays pain. Does not Blister, remove the hair or lay up the horse. $2.50 a bottle, delivered. **Book 1 R free.**
W. F. YOUNG, Inc., 23 Temple Street, Springfield, Mass.

America's Pioneer Dog Medicines

BOOK ON
DOG DISEASES
And How to Feed
Mailed free to any address by the Author
H. CLAY GLOVER CO., Inc.
118 West 31st Street, New York

TELL TOMORROW'S Weather

White's Weather Prophet forecasts the weather 8 to 24 hours in advance. Not a toy but a scientifically constructed instrument working automatically. Handsome, reliable and everlasting.

An Ideal Present
Made doubly interesting by the little figure of Hansel and Gretel and the Witch, who come in and out to tell you what the weather will be. Size 6½ x 7½; fully guaranteed. Postpaid to any address in U. S. or Canada on receipt of **$1.25**

Agents Wanted
David White, Dept. 15, 419 E. Water St., Milwaukee, Wis.

mittee of your national organization ha devoted months of conscientious labor t arrive at these recommendations for you consideration. Those which are presente to Congress will have back of them th overwhelming approval of you members the county farm bureaus.

Congress has not only its eyes on t American Farm Bureau Federation, b also its ears. It realizes that this organiza tion is not made up of dummy officials a a straw membership. It knows that yo organization speaks with authority, b cause it expresses the will of you individu members. Therein lies the power of t Farm Bureau.

That this power is used wisely in leg tive matters depends on you.

Growing, Grading, Selling

[CONTINUED FROM PAGE 6]

begin to show pink in the spring, using mixture of lime-sulphur and arsenate lead to get any insects that might ha escaped the first dose. The third treatm is sixteen to eighteen days after the b soms fall, and consists of lime-sulp alone.

The fourth and last spraying is tim according to the later broods of the codl moth, and consists of arsenate of lead on We determine the proper time by captur a few moths found under the tree bands confining them under burlap sacks on t tree. When the second crop of mo pupates, we spray within eleven days, a usually clean up that nuisance in g shape. Only by carefully watching the c fined moths can the proper time for sp ing be determined. Guessing won't Then, too, every five years we spray w lime-sulphur in winter, while the trees dormant, in order to get the San José sca

BY USING engine power wherever po ble, I get along with one steady ha Besides my power sprayer, which I m tioned before, I have an engine pump my spray house which pumps water i my mixing tanks. This saves much ti and work, as the engine will work Sund or nights without having to be watch as an automatic device shuts the engine when the tank is full. In my feed ho I have another engine which grinds fe runs a grindstone, cuts wood, and d many other odd chores.

I have a light truck to haul my fruit market, and while we haven't a tractor y we expect to get one within a few ye We get electric current from the rail at Wathena, and so can have electric lig in our home. Also, we have an autom pump which keeps our home pressure ta full all the time without any other att tion than an occasional oiling, which m it possible to have hot and cold runn water in bathroom and kitchen. This takes little trouble and the upkeep is sm

On the rest of my farm—about 100 a —I grow corn and alfalfa, and get bu crops, too. Verily, this Missouri bot land will produce anything that grows have found, though, that apples and l stock don't go well together. One need his faculties centered on his trees if he tends to make a success of fruit-raising, outside of a few pigs which the boys h in the pig club, we don't keep much l stock. We let other folks raise the sto

TWO of our three boys are in the l pig club, while the other one will jo soon as he is old enough. They have p greed sows, and have been quite succ as pig growers, raising their porkers on feeders. It's good to see how much int they take in seeing who can grow the pigs. These clubs are a great thing the boys, and do a lot toward keeping t interested in farming, I believe.

Let no opportunity pass to advertise. this I don't mean full-page ads in the dailies and magazines. That kind of vertising doesn't pay unless your bus is enormous and you have a lot to What you can do, though, is to hav attractive brand and put it on every b or crate you ship. You can put a sign by the roadside that will tell the pass what you have to sell. You can use a fa letterhead that will be a real credit to y business. You can, at a small expense, ha some leaflets printed which you can d tribute to buyers and prospective buy And soon you will have a demand for yo product greater than you can fill.

It is an enthusiastic fruit grower w says horticulture is the oldest of agricul tural pursuits; not until Adam and Ev left the Garden of Eden did they have t take up general farming! – *Agrigraphs.*

I Increased My Farm Profits

[CONTINUED FROM PAGE 17]

not paying as it should. I felt helpless without someone to lean upon, but I knew that I had to go on, so the idea struck me that if I would advertise some of my products it would increase my profits. The first thing I did was to send to the town paper an "ad" that read as follows.:

WIVES—Phone 817 R. 3, and it will pay you for your trouble.

Of course, the wives were all curious to know what was at 817 R. 3, so many phoned me the first week. I told them of my excellent butter and guaranteed fresh eggs, and got a few customers. These customers in phoning their orders would naturally talk a little while. We became good friends. Then they sent *their* friends to me. By this time my butter and eggs were in great demand, and my trade increased so that I could put my own price on my goods and still keep my customers. They wanted *good service*, and that is what I gave them. For the mold on my butter I used a camel, which was simple, yet noticeable, and from then on the camel has been my trade mark.

The next thing I did was to advertise my fine milk-fed turkeys and chickens making a specialty of White Orpingtons, and in time the "Camel Orpingtons" were famous. I have sold more settings of eggs that I can account for. Some of my prize-winning hens bring as high as $50 or $75, and have taken first prizes at three successive fairs.

Now, at the picture show I have a slide that is being shown, and I believe it is a good one, for I see a smile on everyone's face when it is being shown. The picture of a shady, grassy vale is thrown on the screen; then in walks a camel, and behind him come cows, pigs, chickens, and other farm animals. On the back of a cow is a kitten, demurely sitting, watching the show go by. Then the words:

Camel Products!
Everything goes after the camel!
Phone 817 R. 3.

My, but my farm has grown! But, listen people, Rome was not built in a day, neither can a farm grow in a week or a month; it takes time and *advertising*, and I hope some day my farm will be three times as large as it is now, and I believe it will.

What One $3.40 "Ad" Did

Fifth Prize—Won by J. P. Burkholder
Clifford, North Dakota

I HAVE made it a rule for a number of years to advertise when I had something to sell or when I wanted to buy.

I use the local paper when I think it will answer my purpose, and I sometimes advertise in farm papers and city dailies. I usually find it profitable—sometimes of course more so than others. For instance, last winter we had about thirty nice full-blood bronze turkeys to sell. We picked out a half-dozen of the largest, dressed them, and shipped them to market. We thought we had done an extra good job, and expected a fancy price; but imagine our surprise and chagrin when our returns showed that we received less than $3 apiece. We decided to try advertising them as breeding stock, and ran an ad in a farm paper at a cost of $3.40. At the same time we advertised Pekin ducks and Toulouse geese.

We sold all of our stock at $8 for Tom turkeys, $6 for hens, $4.50 for ganders, $3.50 for geese, and $2.50 each for ducks and drakes.

The orders kept coming; we bought all the turkeys, geese, and ducks we could find for sale, and still returned over $100 in unfilled orders.

My experience has been that if I want to buy or want to sell it pays to advertise. It saves a lot of correspondence if you state the price and full particulars in your ad, and it is a good plan to give a guarantee.

$35 Sign Paid $2,000

Sixth Prize—Won by Wesley Ray
Carbondale, West Virginia

IN THE spring of 1916 I had seven cows and a team of mules for sale. But owing to the rush in planting out my crops I did not have the time to look up buyers. Finally, when I did get a chance to go to town, I learned that three cattle buyers had passed near my place, and a road contractor had passed right by me and went eight miles farther into the country to purchase a span

Boosting meat sales and the industry

In an effort to increase consumption of meat, Swift & Company, for a number of months, has been printing advertisements in various publications calling attention to the necessity for meats in the diet, to the value of meat as a food, and to the value of the cheaper cuts.

Statistics show that the average consumption of meat per person in the United States fell from 170.9 pounds in 1908 to 142.1 in 1920.

Last winter our branch house managers were reporting that they had never seen it so hard to sell meat. "We always seem to have too much," they said. "We can't get rid of it. Don't see what people can be eating now."

At that time a live stock producer of the Middle West, whose name you no doubt know, was comparing wholesale beef prices in New York with the prices paid for live animals in Chicago. "This beef was obviously being sold at a loss," he stated. "Whole rails of hindquarters and ribs of beef, good enough for any trade," he said, "sold at 16½ to 18 cents a pound. Kosher chucks, 9 to 13 cents; and plate and brisket beef from prime cattle, 6 to 9 cents a pound." (See THE BREEDER'S GAZETTE, March 24, 1921, Page 551.)

At the same time hides that had brought 50 cents a pound the year before were going begging at 12. Such situations are largely a reflection of general conditions—unemployment, business uncertainty, failure of the European demand, etc.

Manufacturers of other foods have been attacking meat in their advertising unjustly for a long time.

We are doing all we can to keep meat and meat products moving. Our sales organization has redoubled its efforts. And we have published the advertisements reproduced here, and others like them, in magazines and newspapers to meet the attack on meat, pointing to it as the greatest of all foods, appetizing, wholesome and nutritious—"good and good for you." We hope they will benefit the producers and the industry in general.

Swift & Company, U. S. A.

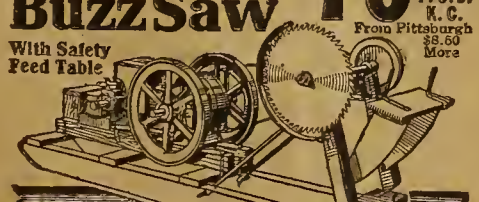
Founded 1868

A nation-wide organization owned by more than 40,000 shareholders

You are sure of a square deal if you mention Farm and Fireside in answering advertisements.

WITTE $79.00 F.O.B. K.C. From Pittsburgh $8.50 More

Buzz Saw With Safety Feed Table



Zip! Cuts just as fast as you can feed wood to saw. No limit to the amount of wood you can cut. WITTE Power Buzz Saws are built in 3 sizes—small, medium and large. Engine and Saw Complete. No farm should be without one. Description and prices FREE. We also make Log Saws, Tree Saws and big Portable Saw Rigs. Specify kind you can use, and we will quote you special. 3 Sizes

WITTE ENGINE WORKS
2063 Oakland Ave. Kansas City, Mo.
2063 Empire Bldg. Pittsburgh, Pa.

A Modern Bath in any Room in any House.
No sewers, No Plumbing, No running water required. Complete full size enameled bath tub 12 gal. water tank. Heats quickly, closes up in 3 sq. ft. of space. On casters. Rolls anywhere. Simple, Low priced, guaranteed. Write for Catalogue.
Roberts-Leech Metallic Bath Tub Co.
Dept. H. Detroit, Mich.

What a Dime Will bring You from the Nation's Capital

The little matter of 10 cts. will bring you the Pathfinder eight weeks on trial. The Pathfinder is an illustrated weekly, published at the Nation's center, for all the Nation; an independent home paper that prints all the news of the world and tells the truth; now in its 28th year. This paper fills the bill without emptying the purse; it costs but $1 a year. If you want to keep posted on what is going on in the world, at the least expense of time or money, this is your means. If you want a paper in your home which is sincere, reliable, entertaining, wholesome, the Pathfinder is yours. If you would appreciate a paper which puts everything clearly, strongly, briefly—here it is. Send 10c to show that you might like such a paper, and we will send the Pathfinder on probation eight weeks. The 10c does not repay us, but we are glad to invest in new friends. Address: THE PATHFINDER, 292 Langdon Sta., Washington, D. C.

Washington has become the World's Capital and reading the Pathfinder is like sitting in the inner council with those who mold the world's destiny.

You can be quickly cured, if you

STAMMER

Send 10 cents for 288-page book on Stammering and Stuttering, "Its Cause and Cure." It tells how I cured myself after stammering 20 yrs. B. N. Bogue, 1371 Bogue Bldg., 1147 N. Ill. St., Indianapolis.

Cut Cooking Time and Labor ½

Enjoy advantages of a NATIONAL Pressure Aluminum Cooker. Cooks entire meal at one time, over one burner, in 30 minutes. Saves labor, ⅔ time and ¾ fuel. No scorching. No mixing of flavors. Solves servant problem. *Write for booklet.*

We also make the NATIONAL Steel Canner for "U. S. Cold-Pack' Canning. Least expensive way. *Free book. Write today.*

Pressure Cookery

Northwestern Steel & Iron Works
Dept. L
Eau Claire, Wis.

National STEAM PRESSURE ALUMINUM COOKER

More Yield Per Acre Is the Important Thing Today

IS THIS a time to be letting up on the efficiency of farming? A thousand times No! When matters are more or less upset in the agricultural world, the germs of *over*-economy are let loose in the air; then unless a man governs himself logically he may be yielding to a penny-wise, pound-foolish policy.

Yield is the big thing today. A certain yield from your land must first pay your fixed expenses—such as investment in land, interest, taxes or rent, labor, depreciation on equipment, etc.—to enable you to break even. For profit, the yield must go higher.

There comes the mission of good, reliable, time-tried tractor power. No expert farmer can doubt now that well-made tractors, such as *Titan* 10-20, *International* 8-16 and *International* 15-30, intelligently operated, greatly increase farm yields and decrease labor costs besides.

Consider these factors alone for a moment: The farmer who owns a tractor does not have to go into the field while the land is too wet for plowing or other work. He does not have to mud a crop in. He can wait until the ground is in the best condition because with a tractor each job can be done in less time. The farmer with a tractor can do a better job of plowing. When the weather gets hot, he doesn't lift the plows, making shallower furrows, as he would have to do with horses. He can plow the proper depth for best yield, regardless of hot weather or hard ground.

Those are some of the details that add to profits or perhaps turn loss into profit. *Good* tractor power gives greater control over seasons, conditions, and work, the year around at belt and drawbar. It is in times like the present that you need the help of International tractors. Tens of thousands of owners are getting most satisfactory service from them. Mighty few of them will ever go back to older methods. For recommendation, inquire of owners in your section.

INTERNATIONAL HARVESTER COMPANY
CHICAGO OF AMERICA (INCORPORATED) USA

92 Branch Houses and 15,000 Dealers in the United States

BEATS 10c GASOLINE

Increases Power and Mileage 40%

Amazing auto invention. Wonderful new carburetor. Guaranteed to reduce gasoline bills from one-half to one-third and increase power of any motor from 30 to 50 per cent.

Sent on 30 DAYS' TRIAL

Fits any make of car. Put on in a few minutes. Fords make as high as 40 miles to a gallon of gasoline. Other cars show proportionate increase. Take advantage of our special 30-day trial offer. Name your car. **AGENTS WANTED.**

AIR FRICTION CARBURETOR CO.
1317 Madison Street Dayton, Ohio

AGENTS Sell Our Concentrated Soft Drink Extracts **And Get the Money**

Biggest seller ever introduced. Big demand. Big profits. Everybody buys. Sells all year 'round. Many kinds. Orangeade, Raspberry, Grape, Strawberry, Apple Cider, etc. Anyone can make it—just add water and a little sugar.

Costs less than a Cent a Glass

Big demand. Easily prepared. Always fresh. Absolutely pure. Guaranteed under U. S. pure food laws. Must satisfy customer or money back. Carry quantity right with you. Write today for territory and sample outfit. Get a big line of customers and get repeat orders every month and have a steady income. Don't put this off. Write quick.

AMERICAN PRODUCTS CO., 5256 American Bldg., Cincinnati, Ohio

WHITE LEGHORNS Thousands of hens, pullets and males at lowest prices in years. Winners at 50 big shows and laying contests. Records up to 307 eggs. We ship C. O. D. and on approval. Catalog and bulletin of special prices gives full particulars. Write for it now.
Geo. B. Ferris, Dept. 908, Union Ave., Grand Rapids, Michigan

3 BIG BARGAINS

WAIT! Before you buy an Engine, Separator, Spreader or any other machine, get Galloway's new low price; save ¼ to ½. 300,000 pleased customers testify to faultless designs, best materials. Satisfaction guaranteed. Send for catalog.
WM. GALLOWAY CO., Box 397 Waterloo, Iowa

THE OLIVER OIL-GAS BURNER

Makes cooking in summer a pleasure instead of a task. Heat when you want it—not a minute longer than you need it. Does away with coal and wood—cheaper. Makes your stove or range a gas stove.

No fires to make. No ashes, dirt, smoke, odor, chopping, shoveling—carrying coal or wood. Saves hours of work. Makes your stove bake better, cleaner, quicker. Thousands in use over 10 years. Doesn't change your stove, just sits in fire box, easily slipped in or out, absolutely safe. Lasts lifetime. Makes its own gas from coal-oil (kerosene) at small cost. Gives even heat instantly, by simply turning valve. Saves money, time, labor. Sold under money-back guarantee—30-day trial. Write for FREE literature and special introductory price.

AGENTS WANTED. BIG MONEY.

Oliver Oil-Gas Burner & Machine Co.
Oldest Largest Mfr's Oil-Gas Burners
2003-G PINE STREET, ST. LOUIS, MO.

30 Days' Free Trial Select from **44 Styles**, colors and sizes, famous **Ranger** bicycles. **Delivered free** on approval, from maker - direct - to - rider at **Factory Prices.** Save $10 to $25 on your bicycle.

12 Months to Pay Immediate possession on our liberal Easy Payment plan. Parents often advance first deposit. Energetic boys earn the small monthly payments thereafter.

Tires Horns, wheels, lamps, parts and equipment at half usual prices.

SEND NO MONEY—Ask for big free Ranger Catalog, marvelous prices and terms.

Mead Cycle Company Dept. B-83 Chicago

Special offer to Rider Agents

You'll Get the Best Horseshoeing

THIS CHECKED HEAD OUR TRADE MARK

if your shoer uses "Capewell" nails. Their driving and holding qualities make them superior to all other brands. It is important to you to have nails used which will go into your horses' hoofs without splitting or crimping and will hold under the severest strains.

Learn Auto and Tractor Business

Earn $150 to $400 a Month Right in your own neighborhood get into big-paying business. **Learn in 6 to 8 Weeks.** Work on real Autos, Trucks, Tractors. Write today for **FREE** 68-page Opportunity Book.

Rahe School Dept. 2262 Kansas City, Mo. Cincinnati, Ohio

of mules! I was left in the soup, to use slang phrase.

This incident put me to thinking, "If I don't advertise, nobody will know that I have anything to sell!"

I placed a "For Sale" ad in the local paper, and as I went home I thought another scheme. I live one-half mile from the old state pike, and just below where my road intersects this pike, a spring of cold water bubbles out of the bluff. I went to work and built a neat watering trough of concrete by the roadside, then got three sections of one-inch piping and piped it into the trough. Just back of this trough I erected a large sign of matched boards painting it black. The entire cost of the work was about $35. With chalk I wrote my ad in neat, readable lettering:

FOR SALE: 7 Holstein cows. One span of mules, black—5-year-olds. Sweet potato, cabage, and tomato plants. Fresh eggs, butter, poultry, etc.
THE RAY FARM—one-half mile north.

Within one month I had sold four cows and the span of mules, and we were getting a good trade right at home for our eggs, butter, etc. It simply surprised me. I had done far better than I ever dreamed of in the way of advertising. The billboard and the local ad did it for me, and is still doing it.

Recently, I estimated roughly, what the billboard has been worth to me in four years—not less than $2,000, and it cost me $35.

What Advertising Did for M

Seventh Prize—Won by H. L. Beightler
Peoria, Ohio

ABOUT five years ago I started breeding Poland-China hogs, and I didn't have much of a home market—only to sell them over the scales. So I started advertising in a small way. Now I have satisfied customers in eleven States, and have had inquiries from nearly every State in the Union, and from Cuba. I am satisfied for every dollar spent for advertising I have made $100, for I have never shipped a hog unless I got a good round price. If I had never advertised I would have had to sell most of my hogs over the scales. So you can see advertising has made me a success instead of a failure as a breeder of purebred hogs. As you will see by my letterhead I am also breeding Percheron and Belgian horses and Shropshire sheep, and I receive many inquiries for horses and sheep by using printed letterheads in making my hog sales.

Books We've Received

Types and Breeds of Farm Animals, by Charles S. Plumb, professor of animal husbandry in the College of Agriculture, Ohio State University, also Corresponding Editor of FARM AND FIRESIDE. This volume is a revision of his first work published in 1906, by the same name, including more complete information in the study of breeds and breeding. Published by Ginn & Company, New York City. Price $3.80.

Agricultural Drawing and the Design of Farm Structures, by F. W. Ives, assistant professor of agricultural engineering, Ohio State University, and corresponding editor for FARM AND FIRESIDE, and Thomas E. French, professor of engineering drawing, Ohio State University. Published by McGraw-Hill Book Company, Inc., New York. Price, $1.75.

Must We Fight Japan? By Walter B. Pitkin, associate professor of philosophy, Columbia University. Published by the Century Company, New York City. Price, $2.50.

Agricultural Meteorology, by J. Warren Smith, specialist in weather and crops. Published by the MacMillan Company, New York. Price, $1.92.

The Chemistry of Plant Life, by Rosco W. Thatcher, dean of the department of agriculture and director of experiment stations, University of Minnesota. Published by the McGraw-Hill Book Company, Inc., New York City. Price, $3.

Diseases of Economic Plants, by F. L Stevens, professor of plant pathology, University of Illinois. Published by the MacMillan Company, New York. Price, $3.90.

The Soils and Agriculture of the South States, by Hugh H. Bennett of the Bureau of Soils, U. S. Bureau of Agriculture. Published by the MacMillan Company, New York. Price, $3.50.

Farm Motors, by Andrey A. Potter, dean of the engineering division and professor of steam and gas engineering, Kansas State College of Agriculture. Published by McGraw-Hill Book Company, Inc., New York. Price, $2.50.

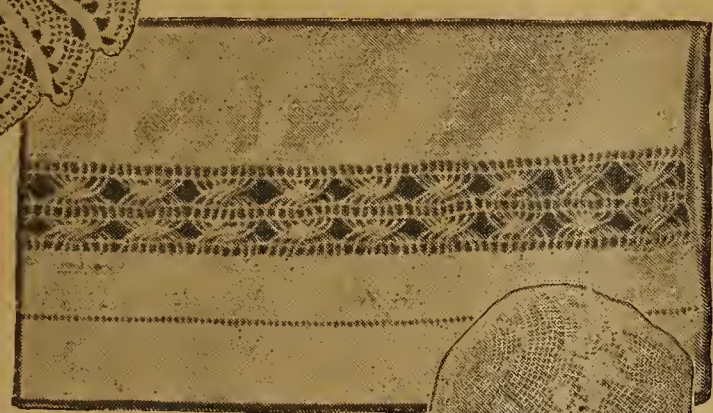
Principles of Animal Biology, by A. Franklin Shull, associate professor of zoölogy, University of Michigan. Published by McGraw-Hill Book Company, Inc., New York. Price, $3.50.

Great Men and Great Days, by Stephane Lauzanne, editor of "Le Matin," Paris. Published by D. Appleton & Company, New York. Price, $3.

Here Are Some Fancy-Work Designs for You

WE CHRISTENED this doily the "Pin Wheel" because the edge was so fairy-like. Directions are given for making it with eight-, twelve-, and fifteen-inch diameter. The smallest size is especially nice to use under flower vase or bowl.

This spiral insertion (below) is like the airy, knitted lace of Grandmother's day, yet it has a new look and several earmarks which make us say, "That's crochet." It is crochet and such a dainty and different design that we're sure you will want to try it.



IT'S often hard to get a hood small enough for the very tiny baby, isn't it? This little hood in filet crochet was especially designed for him, but since we thought it would be pretty for the older baby as well, we have prepared full directions for enlarging it.

Last of all, we are showing, just below, a camisole in filet crochet. This dainty butterfly yoke seems especially suited to the month of July.

DIRECTIONS for making these four designs will be sent upon receipt of ten cents in stamps. Order No. FC-139. Address, Fancy-work Editor, Farm and Fireside, Springfield, Ohio.

When You Go to the Circus

[CONTINUED FROM PAGE 9]

was very ill, and seemed to know he was going to die. Somehow, he made known to the natives that he wanted his old rider, who for years had directed his work of getting timber out of the jungle.

The man was a long way off, but they sent for him, and he came. When he walked up beside the old fellow, the elephant encircled him with his trunk, drew him gently to him, and held him there quietly until he died, less than half an hour after his old friend came.

Our elephants, foxy, tricky, fun-loving, interesting big boys, are prodigious eaters. They eat so much that they are known among showmen as "the hay burners." Does it surprise you to know that our 42 elephants eat 42 bales of hay a day? That's a bale apiece, or about two tons. Suppose your horses did that!

Speaking of expenses, it may interest you to know that it costs over $12,000 a day to run our circus when it is on the road, as it is now. We carry 1,500 people, and it costs us $1.28 a day to feed each one of them, or about $2,000 a day for food for them all. The advance billing and advertising of the show costs about $2,000 a day. We have 80 bill posters who travel ahead of the show all the time, posting bills.

You take items like that, and add the salaries of all the performers and workers, and it doesn't take long to figure up the $12,000 a day, I can tell you. This is not just circus talk; it is the real fact. It cost about $350,000 just to keep the circus in its winter quarters at Bridgeport, Connecticut, from late fall until early spring. And then the circus maintains permanent business offices in Chicago and New York the year around. All those things are expensive.

The circus is a great business—one of the biggest and most expensive of any business in existence, much bigger than the biggest department store, bigger than most great factories; and it does what no other business of its size ever does: it rolls around the country on wheels, for your pleasure and entertainment.

"Deep stuff" is going on in the minds of these two lion cubs, but no human being will ever know what it is. Note the expression on the face of the one to the right—isn't it for all the world like the face of the family cat?

They never made a cigarette like this in my day—

The Camel idea wasn't born then. It was the exclusive expert Camel blend that revolutionized cigarette smoking.

That Camel blend of choice Turkish and Domestic tobaccos hits just the right spot. It gives Camels such mellow mildness and fragrance!

The first time I smoked Camels I knew they were made for me. I knew they were the smoothest, finest cigarette in the world, at any price.

Nobody can tell me anything different.

R. J. REYNOLDS Tobacco Co.
Winston-Salem, N. C.

Camel

RAISE SILVER BLACK FOXES No industry as PROFITABLE—none as interesting. Send today for FREE BOOKLET. BURR-KAYE FOX RANCH 1658 Broadway, New York

It is to your interest to mention Farm and Fireside in answering advertisements.

WANT to hear from party having farm for sale. Give particulars and lowest price. John J. Black, 71st St., Chippewa Falls, Wisconsin.

MENDETS—WONDER MONEY MAKERS

mend leaks instantly in all utensils, hot water bags, etc. Insert and tighten. 10c and 25c a package, postpaid. Agents Wanted. Collette Mfg. Co., Box 704, Amsterdam, N.Y.

Stifel's Indigo Cloth
Standard for over 75 years
STIFEL REGISTERED

Look for the boot trade-mark on the back of the cloth, inside the garments before you buy.

For Men's Overalls, Jumpers, Uniforms

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The strongest, fast color, work-garment cloth made.

Garments made of Stifel Indigo sold by dealers everywhere

J. L. STIFEL & SONS
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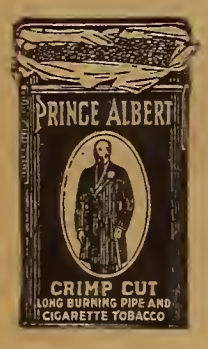
We are Manufacturers of the cloth only

Me-o-my, how you'll take to a pipe—and P. A.!

Before you're a day older you want to let the idea slip under your hat that this is the open season to start something with a joy'us jimmy pipe—and Prince Albert!

Because, a pipe packed with P. A. satisfies a man as he was never satisfied before—and keeps him satisfied! Why—P. A.'s flavor and fragrance and coolness and its freedom from bite and parch (cut out by our exclusive patented process) are a revelation to the man who never could get acquainted with a pipe!

Ever roll up a cigarette with Prince Albert? Man, man—but you've got a party coming your way! Talk about a cigarette smoke; we tell you it's a peach!

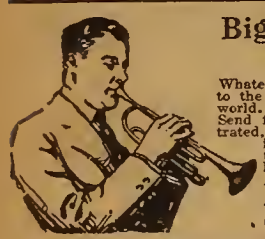


Prince Albert is sold in toppy red bags, tidy red tins, handsome pound and half pound tin humidors and in the pound crystal glass humidor with sponge moistener top.

PRINCE ALBERT

the national joy smoke

Copyright 1921 by R. J. Reynolds Tobacco Co. Winston-Salem, N. C.



Big Band Catalog sent free

Whatever you need—from a drumstick to the highest priced cornets in the world. Used by the Army and Navy. Send for big catalog: liberally illustrated, fully descriptive. Mention what instrument interests you. Free trial. Easy payments. Sold by leading music stores everywhere.

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OTTAWA

1½ H-P ENGINE IS NOW ONLY $35.50

Other sizes 2 to 22 H-P at low prices. Good engines sold direct to you. 90 Days' Trial—10 Year Guarantee. Write for Free book before you purchase any engine.
OTTAWA MFG. CO.
1151-A King Street Ottawa, Kansas

Missed his train—but not refreshment. Coca-Cola is sold everywhere.
THE COCA-COLA COMPANY
Atlanta, Ga.

Drawn by Marion T. Justice

Somehow the rumor spread that Huck had grabs in his old gunny sack, and everyone seemed anxious to get one of the calico-wrapped packages in exchange for a dime

A Huckleberry Lawn Social

By Emily Rose Burt

> H-u huckle
> B-u buckle
> C-u cuckle y
> H-u huckle
> B-u buckle
> Huckleberry Pie!
>
> Come to the Huckleberry Social!
>
> Huckleberries there to eat!
> Huckleberry Finn you'll meet!

ALMOST every man likes huckleberry pie or, if he doesn't, steamed huckleberry pudding with lots of sauce. And every girl likes surprises! So, with this as a basis, you can understand the why and wherefore of the posters that a certain young people's club displayed on the telegraph poles and sign posts in their vicinity, as well as in the village post office and stores. Each poster bore the annexed nonsense jingle of childhood.

At the bottom of the placard was a big splashy hand print of blue-black ink that looked as if Huck Finn or some other scamp had signed with huckleberry juice, "The huckleberry hand."

The affair was held on a lawn, lighted with bobbing blue paper lanterns and set with small tables. Each table was presided over by a pretty girl with a round blue paper cap and an apron to match worn over a white dress.

Each customer was asked if he or she would have huckleberry pie, pudding, or surprise.

The pie was the well-known juicy variety, the pudding was steamed fruit pudding with liquid sauce. But the surprise—it turned out to be ice cream with crushed huckleberries poured over it in sundæ fashion.

Huckleberry Finn was much in evidence, ranging about from table to table, dragging a brown gunny sack along carelessly. Somehow the rumor spread that Huck had grabs in that gunny sack, and everybody was willing and anxious to invest ten cents. The grabs were well wrapped in bright squares of calico and gingham, presenting a most variegated appearance. The materials, of course, had been furnished from many a mother's scrapbag.

The Huckleberry Twins also peregrinated among the tables. They were dressed similarly in blue calico and sunbonnet, and each carried a shining ten-quart pail filled with giant huckleberries, which were really quarter-pound portions of home-made candy tied up bag-fashion in blue tissue paper.

Simple Simon and the Pieman were another pair of characters who wandered about the grounds, the Pieman bearing a tray of little huckleberry saucer pies, and Simple Simon taking in the quarters for which they were sold.

A few amusing contests made up part of the diversions of the evening.

One, indulged in by boys only, was the huckleberry race. A number of boys stood in line, each with a bowl of huckleberries, and vied with each other as to which one's mouth could hold the largest number of huckleberries at once, each huckleberry being put in place singly.

That was followed by a pie-eating contest, the object being to see which chap would get his piece of juicy pie eaten first and most neatly.

A third jolly competition was on the order: A big pan of huckleberries was provided, as well as a dozen penny hatpins. The contestants gathered around the pan and tried spearing berries. The hatpin first filled to the hilt was the prize-winning one.

A JOLLY game played by some of the young people was on the order of Bird, Beast, or Fish—calling for mental agility.

All the players sat in a circle, and the one who was "It" pointed his finger quickly at someone, shouted either the word "Pie" or "Pudding," at the same time counting to ten. Before ten was reached the person singled out was expected to answer with the name of a kind of pie (that is, apple, peach, custard) or pudding (floating island, bread and butter, etc.) according to the demand specified.

The girls found the game easier than the boys, though the latter did fairly well on pies. If anyone failed to respond before the fatal "ten" was reached, that person was "It." No duplicate names were accepted.

A short and appropriate program was given during the evening, with the porch as a stage.

NOTE: The Pantomime Movies, from the book "Huckleberry Finn," will be sent on receipt of a stamped self-addressed envelope. Address Entertainment Editor, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

FARM AND FIRESIDE

The National Farm Magazine

George Martin, *Editor*

Trell W. Yocum, *Managing Editor* Andrew S. Wing, *Associate Editor* Elizabeth Fitch, *Household Editor*
T. J. Delohery, Chicago, Illinois, *Associate Editor*

Corresponding Editors

Dr. A. S. Alexander, *Veterinarian* — L. E. Call, *Northern Crops and Soils* — J. F. Duggar, *Southern Crops and Soils* — Frederick W. Ives, *Farm Engineer*
F. F. Rockwell, *Horticulture* — Charles S. Plumb, *Livestock and Dairy* — Victor S. Auhry, *Poultry* — Mrs. Nell B. Nichols, *Household*

You are invited to ask questions of any or all of these in their respective fields. State your problem clearly and fully, enclosing a stamped self-addressed envelope for reply. Address each editor in care of Farm and Fireside, 381 Fourth Avenue, New York City

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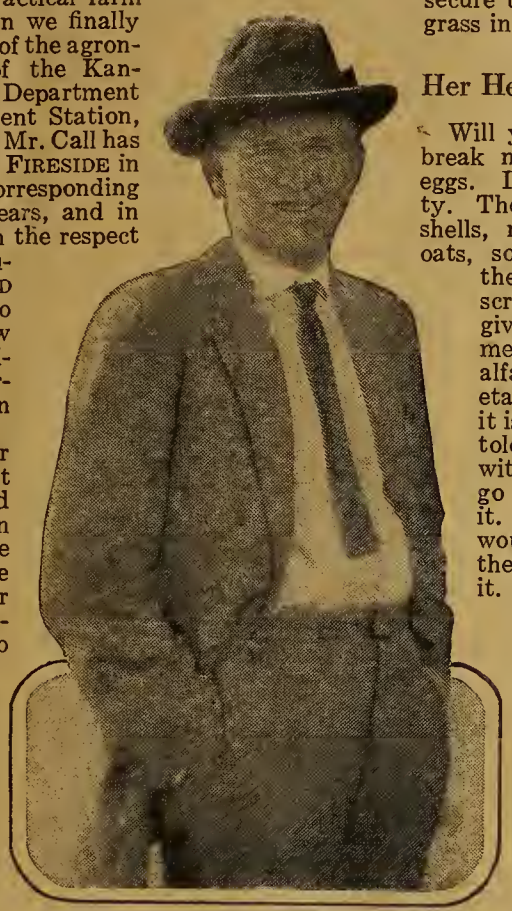
Is Your Question Here?

If you don't find it answered here, write us a letter and we will try to help you

WHEN we started looking around for a man to answer questions and to write articles for FARM AND FIRESIDE on subjects pertaining to crops and soils in the territory north of the Mason-Dixon line, we naturally looked for a man from the Middle West, a farm-born man, up-to-the-minute on scientific agriculture, and at the same time full of the wisdom that comes from practical farm experience. The man we finally chose was L. E. Call of the agronomy department of the Kansas State Agricultural Department and Kansas Experiment Station, Manhattan, Kansas. Mr. Call has been with FARM AND FIRESIDE in the capacity of Corresponding Editor about two years, and in that time he has won the respect and esteem of thousands of FARM AND FIRESIDE readers who have come to know him through his articles and the sound personal advice given in his letters.

On a farm near Darrowville, Summit County, Ohio, Leland Everett Call was born February 9, 1881. He was reared on the home farm, and after finishing his preparatory training went to Ohio State University, where he graduated from the college of agriculture in 1906. After graduation he taught at Ohio State for a year, and then went to Kansas State Agricultural College, where he rapidly rose, until in 1913, he became a full professor. In 1919 he served with the A. E. F. University, France, as a supervisory crop professor. At the close of the war he returned to Kansas to resume his old duties and, in addition, to act as dean of the college and director of the experiment station.



This is L. E. Call, who answers all questions about Northern crops and soils

In addition to his work as instructor and scientific investigator, Mr. Call has found time to write several farm textbooks. He has always kept in close touch with the real business of farming through the home farm, which is still operated by his family in Ohio, and by operating a farm himself near Manhattan. We might add that he is a mighty likable man in addition to being a good farmer.

IF YOU have any questions to ask about growing farm crops, or the management of pastures, soils, use of lime or fertilizers, in the North, send them in and Mr. Call will answer them. Any other farm or household questions will be promptly answered by other members of our Corresponding Editors. State question fully and clearly, enclosing self-addressed envelope. Address in question, care of Service Department, FARM AND FIRESIDE, 381 Fourth Avenue, New York City. THE EDITOR.

How to Grow Sudan Grass

I would like to know how Sudan grass would be adapted to red clay soil. Also, how is it raised and when should it be cut for hay? Which would thrive best in soil that has been run down, Sudan or millet?

J. O. F., Ohio.

REPLY BY L. E. CALL: Sudan grass is a crop belonging to the sorghum family that is commonly grown in the central and southwestern part of the United States for both hay and pasture. It would do fairly well on a red clay soil, such as you describe, in a dry season. In a wet season the crop is apt to be injured by rust and other plant diseases. On a thin soil it is less likely to be injured by diseases of this character than on a rich soil. In a wet season there is a possibility that millet would produce somewhat heavier yields of hay, but in a dry year Sudan grass, on the type of soil that you describe, would outyield millet.

Sudan grass should be sown with a grain drill, on a well-prepared seed bed, at the rate of about 20 pounds to the acre. Ordinarily, it is not advisable to sow Sudan grass until about two to three weeks after corn-planting time. It should be cut for hay about the time the majority of the heads are in the boot. At this time a few heads will appear here and there over the field. In your State you should be able to secure two cuttings of Sudan grass in a normal season.

Her Hens Are Egg-Eaters

Will you tell me a way to break my hens from eating eggs. It is a regular egg party. They have bone, oyster shells, mash of shorts with oats, sometimes corn in it, then wheat at night, scraps from table. I give them big chunks of meat to pick at, also alfalfa hay and raw vegetables, so I can't think it is their diet. Someone told me to mix vinegar with mash and let them go hungry till they eat it. I am trying that. I would kill one hen, but they all seem to be doing it.

Mrs. G. E. G., Montana.

REPLY BY V. G. AUBRY: The egg-eating habit among hens is very much the same as the whisky habit among men—it is a hard habit to break once it is acquired. No amount of change or regulating of feed seems to have much effect. Although I have never heard of the vinegar treatment, I doubt very much if it is any good. The best solution that I know of is to darken the nests so that the birds can't see to eat the eggs. But once they have got the taste of eggs and know how to break them, unless you can find the one or two hens which seem to be the leaders, you will find it almost impossible to break this habit.

Most hens will eat eggs once they are broken, but very few will break them if they are not already cracked.

How to Dry Off a Cow

I will appreciate your giving me the proper method to use in drying a cow, and the best feed to give up to the time of freshening and afterward. Can you recommend a good book on dairy cattle?

T. W. D., Massachusetts.

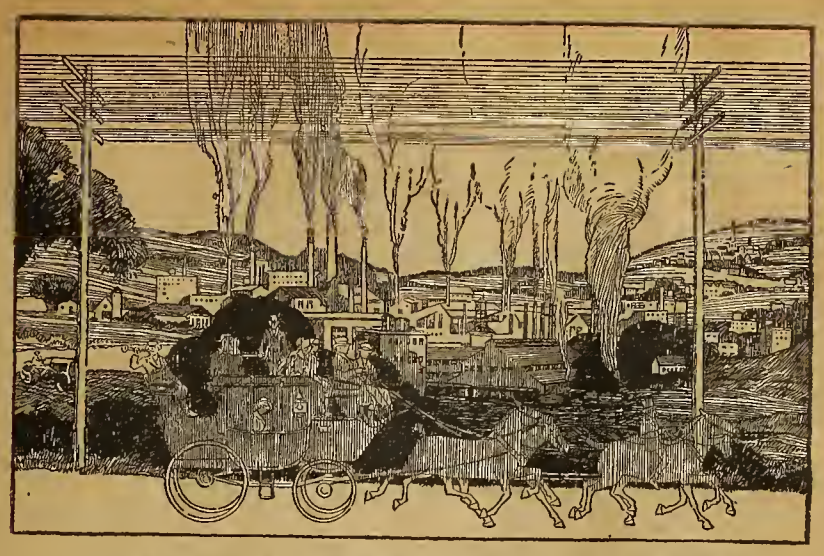
REPLY BY C. S. PLUMB: In the drying-off process take off all grain food, giving only roughage, and at each milking leave a small amount in the udder—not stripping. Some cows dry off rapidly, others that are retentive milkers are sometimes difficult to dry entirely off. After a few days one should milk but once daily, if the milk yield is falling away satisfactorily.

You should buy or use the legumes, such as clover or alfalfa if available, although a mixed New England meadow hay, not too coarse in timothy, will do. Silage, of course, is very desirable. A 1,000-pound cow will consume from 15 to 20 pounds of hay a day, and grain according to milk production—the rule being to use about one pound of grain for three and one-half pounds of milk produced. A week or so prior to freshening, a pound or two of wheat bran and half a pound of oil meal will be of advantage in promoting easy calving. If you have only one or two cows, it would be as well to feed a mixture of equal parts by weight of corn meal, ground oats, and bran.

You will find "Farm Dairying," by Prof. Larsen, published by the Orange Judd Company of New York City, to contain useful information on dairy cattle.

Says a New York farmer: "It's reached a point where it requires less effort to buy a registered dairy calf and sow alfalfa than to explain why I don't—so I've done both!"

Agrigraphs.



". . . places far apart are brought together, to the present convenience and advantage of the Public and to the certain destruction, in time, of a host of petty jealousies, blindnesses and prejudices, by which the Public alone have always been the sufferers."
From Charles Dickens' Preface to Pickwick Papers.

The Advance of Understanding

Even romance of sixty brief years ago could not imagine the great advance heralded by the passing of the stage coach. The railway and telegraph were coming into their own; but the telephone had not been so much as dreamed about.

Yet the wise men of that day saw the imperative need. They saw the value of every step which brought people into closer communication with each other. They knew this to be the one way to increase understanding; and to eliminate the "host of petty jealousies, blindnesses and prejudices, by which the Public alone have always been the sufferers."

Then came the telephone. And with its coming time and distance are swept away and a hundred million people are made neighbors.

Places far apart are brought together by 34,000,000 conversations a day over the Bell System.

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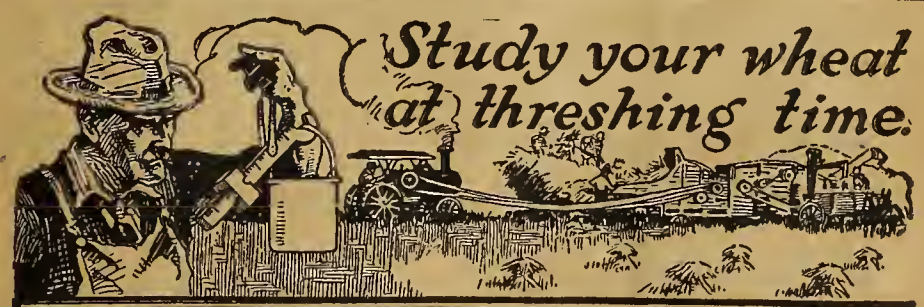

OF course, you are very busy then but it will pay you to take time to find out not only the yield but the real quality.

Is the weight per struck bushel up to the standard?

Does it grade high enough to bring the top price in your market?

Is the weed seed box free from light chaffy wheat grains?

Has the clover and grass made a good set in the stubble? If not, why not?

Six years of potash starvation has had its effect on wheat lands. Enough German Potash has now come forward, so that those who wish can buy wheat fertilizer with 4 to 6 per cent. of potash. Potash prices are now much lower.

Tell your dealer now what you want and insist on having it.

Potash Pays

SOIL AND CROP SERVICE, POTASH SYNDICATE, H. A. HUSTON, Mgr.
42 Broadway New York

Our Letters to Each Other

Concerning another of those things that "couldn't be done," but was!

THE human animal is a queer critter. I know. I happen to be one myself. What I say, therefore, applies to me just as much as it does to you. But we certainly perform some funny antics. And here is a case in point:

This morning, just as I finished reading a government report showing how many millions of our hard-earned dollars we Americans pour into fake investments every year, I picked up the following letter showing how, on the other hand, we frequently turn up our noses at a really paying proposition, and brand its promoters as hopelessly insane.

The letter speaks for itself, and I print it in full. If it means anything, it means that, before we put "thumbs down" on any proposition that is sincerely being tried to help us, we should give the men back of it the benefit of the doubt, at least until they have definitely failed. And even then they ought to receive some credit for trying. Here is the letter:

TUCSON, ARIZONA.

"MY DEAR SIR: This morning's mail brings me a copy of FARM AND FIRESIDE for April, which I have read with much interest.

"The article 'What My County Agent Has Done to Help Me Make More Money,' on page 9, has been of particular interest to me. The fourth-prize story, written by Mr. John C. Matheny, Miami, Missouri, relating his experience in the construction of Mangum terraces, was of exceptional interest to me because this is along the Missouri River, and just across from Carrol County, where I was county agent when this work was started. You may be interested in knowing how the Mangum terrace was started in the Northern States.

"I was county agent in Missouri about six years ago when they had an unheard-of wet season. Farmers came to me by the dozens, and in a joking manner remarked that they would have some use for a county agent if he could help them save their fields from being ruined from erosion.

"I wrote to the soils department of the University at Columbia, Missouri. I also wrote to the Department of Agriculture, Washington, D. C., for transmittal through my state office. This request was taken up in person with the Department of Public Roads and Drainage, with the result that Dr. McCrory made two personal visits to Carroll County, when I showed him the situation. He told me of the Mangum terrace, which was a new term to me, and in explanation stated that it had never been tried north of the Mason and Dixon line, but that he would be pleased to send an engineer and conduct a demonstration in the preparation of a Mangum terrace on a suitable farm in Carroll County, provided I could locate such a cooperator.

"The first farmer who promised to undertake this work was laughed at by his neighbors until he got cold feet and told me he did not feel he had the time to conduct the demonstration. I later located a field well suited for this work, on the farm of Mr. Frank L. Furry, some six or eight miles from Carrollton, the county seat. Mr. Furry said he had been offered $200 an acre for this farm, but if the washing continued from heavy rains the soil would in time all be washed away and the fields be worthless. He said we could do as we pleased with that field of 40 acres. Arrangements were made in detail, and in due time the engineer representing the Department of Agriculture arrived from Raleigh, North Carolina, where he was thoroughly familiar with the construction of the Mangum terrace.

"The engineer brought his surveying instruments and carefully laid out plan No one had confidence in the undertaking and as county agent I had to spend man days running the plow and road scraper the construction of these terraces, besid encouraging Mr. Furry to the point finishing the work in correct manner.

"I remember one day a neighbor ca along the road and called across the fen to us, asking when we thought we would b taken to the insane asylum for the kind work we were doing. This represented t general attitude toward this work at th time.

"We had photographs taken of the wor copies of which are now in the office of t Bureau of Public Roads in Washingt D. C.

"I resigned from my position soon aft this terrace was in good working conditi and took up work with the States Relati Service, with headquarters at Washingt Since that time I have not been in cl touch with the work. In conversation w county agents in Missouri I learned th year ago one half of their annual confer period was taken up in discussing the M gum terrace, which has now sprea practically every county in Missouri w a county agent is located. I rem noticing an editorial in 'Wallace's Fa perhaps a year ago, where it was s that the Mangum terrace was well ada to all the territory in which their paper read. I feel the same is tru most of the territory w FARM AND FIRESIDE circula

"Yours truly,
"W. M. COOK,
"County Agent Lead

Mr. Cook does not know t I know this, but it is a matte record that even when he this terracing question up certain officials he was ho down, and told that the thin proposed was so ridiculou would not receive any fur consideration. This despit fact that Mangum terracing already an established and cessful soil conservation m ure in other parts of the cou

Well, as I said in the place, we're funny mortals.

Yours until next month,

George Martin

IN a recent talk with B. H. Gardner, who travels in the interests of FARM AND FIRESIDE, he told me that shortly before he had met a farm-machinery man from Chicago who made the assertion that, with their present equipment, they could manufacture in one year enough machinery to last the farmers of America for five years. "Machinery," as he had naïvely put it, "doesn't wear out—it rusts out." THE EDITOR.

This picture shows one stage in the work of building the first Mangum terrace to be introduced in the Northern States. Six years ago, when Mr. Cook was county agent of Carroll County, Missouri, heavy rains were working the top soil off many of the county's farms. Cook got busy and learned about the Mangum terrace—and tried to convince the farmers it would stop their losses. Finally Frank L. Furry, who owned a farm nearby, gave him free reign on this 40-acre field. It worked—and now practically every county in Missouri uses the system on its farms

Picture by courtesy of the U. S. Bureau of Public Roads

The "Plodder" Beats the "Bluffer" Every Time

By Bruce Barton

THE newspapers have recently published another chapter in the history of two men who have interested me a long time.

Like most other successful New Yorkers, they came to New York from a country town—the younger of them to enter a law office, the older to work in a very humble capacity for a great corporation.

The younger was blessed with an immense charm and capacity for making new friends; in a comparatively brief time he was a member of prominent clubs and a recognized figure at functions of various kinds. The older man made progress very slowly; few knew him outside the big office where he worked.

Back in the little town from which they had come folks were proud of the one and pitied the other. So the years went by.

To-day the younger man is almost wholly discredited in his profession; and last week the newspapers published the announcement that the other man—the plodder—had been elected president of the corporation where he went to work as a clerk fifteen years ago.

What happened? Why should so much brilliance wind up in the discard, while seeming mediocrity comes out on top? There is only one word with which to answer that question—*sincerity*.

People learned that the brilliant young man, however great his charm, was not a man to be trusted; and the plodder, who had average ability plus a more than average *dependability*, moved forward a step at a time to one of the best positions in business.

If there is any lesson in the present situation of the world it is this lesson of the enduring value of sincerity, it seems to me.

Only a little while ago I met and talked with the president of a company which does the largest business in its line in the world.

"We suffered pretty badly during the war," he said. "Smith, our chief competitor, took advantage of the situation to adulterate his product with some cheap substitutes. It seemed almost foolish for us to maintain our standards and watch our profits run away.

"But, believe me, the dealers will never forgive Smith," he continued. "Their memories are long; they do not forget. We have shown sales gains every month right straight through this bad slump, and his sales are almost flat."

The war was fought to rebuke and destroy Germany's insincerity; and the world is hungry for a larger frankness as the fruits of the victory. The old tricks of politics, and fuss and fury, that have characterized dealings between employer and employee all seem battered and out of date. The race is impatient of pretense as it never has been before.

"That man will go far," said Mirabeau of Robespierre; "he believes every word he says."

On the day last summer when I had dinner with Mr. Harding in Marion, Ohio, another gentleman was present who had come to make a request backed up with a considerable amount of prestige and influence. And Senator Harding was heard to say:

"No, sir, I will not do it. It may not be possible for me to be a great President, but at least I can be a sincere President."

If he sticks to that, and is patient, he will travel well. Sincerity is a slow starter; bluff and pretense often distance it badly in the first laps of the race; but it certainly does finish strong.

FARM & FIRESIDE

The National Farm Magazine

AUGUST

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Story of a wonderful race horse owned by a poultryman

"A Vampire Soul Behind a Lovely Face"

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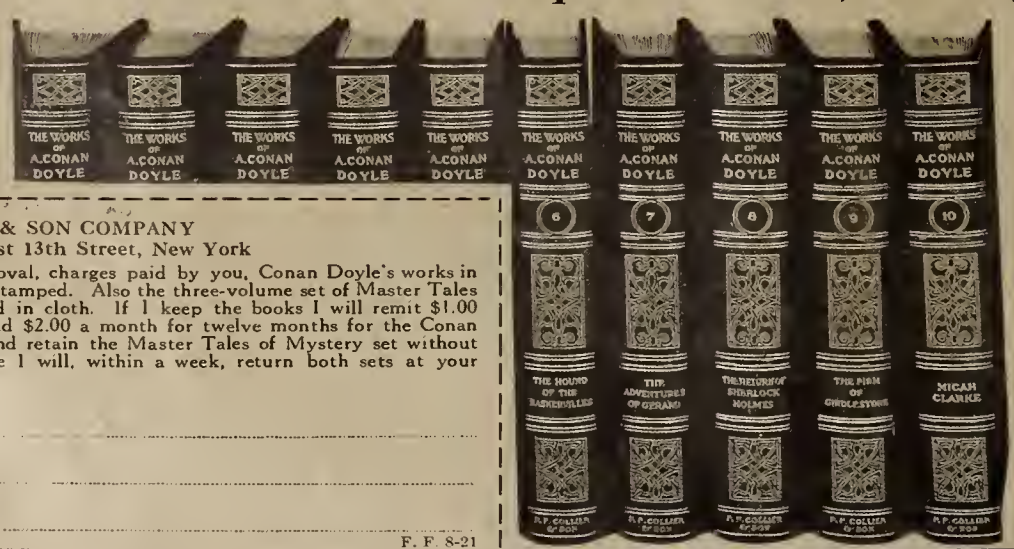

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Vol. 45. No. 8

FARM & FIRESIDE

The National Farm Magazine

August 1921

Why We English Farmers Also Had to Organize

By John Brooks

WHILE you American farmers have been organizing the American Farm Bureau Federation and your state and county farm bureaus, our 250,000 English farmers have been wrestling with their own coöperative problems in a very interesting way that might be entertaining and possibly useful for you to know about.

But I think you will agree that we farmers in both countries have organized because we *had* to organize: we English farmers to meet one kind of competition; you American farmers to meet another kind of competition. We both organized because we realized that if we didn't do so the whole structure of agriculture in each country would come tumbling down in ruins. We found, as you are finding, that the right kind of national and local organization does pay.

The thing that drove us English farmers to national coöperation was the powerfully organized coöperative retail stores. That may seem odd, on the face of it, but the fact is that these retail coöperative buying organizations got so strong, had so many millions of dollars invested in them, and such capable business men at their heads, that they could buy their food products anywhere in the world that they were produced. They even tried to equip and operate their own enormous farms all over the world. That didn't work so well. You simply cannot do two things at once. But world-wide buying enabled the coöperative stores to tell the unorganized English farmers to meet their production, packing, shipping, and price standards, or go hang. Which they did. The English farmers *had* to organize in self-defense. This they have now done, with good results.

I don't know whether the coöperative retail-store corporation, on the chain-store plan, is threatening to develop in the United States. I haven't heard of it. I know you have several big groups of chain stores, but they are not coöperatives. And, anyhow, your timely move in national agricultural coöperation puts you in a good position to deal with that problem should it eventually arise.

THE fat and florid farmer in spoon-fed Britain hasn't had such a tremendous picnic as a lot of people in distant countries seem to imagine. True, he is represented, pictorially, as forever wearing a jolly, rubicund, contented expression, a crimson-hued vest, and substantial breeches. But because of this it must not be thought there is never a fly in his ointment.

Until John organized, he was, for ten months of the year, the national cockshy of the politician, the big retail organizations, and the industrial coöperative concerns. If he had a bad year, and couldn't pay his taxes right on the dot, the populace made faces at him, and advised him to take up silkworms or plate-laying for a living. If, however, he had a good year, and bought an automobile, that same populace contracted spontaneous combustion in several places at once, yelping "Profiteer!" That's why the British farmer decided he would coöperate.

In the good old days, when socks were two for a quarter and potatoes three pounds for tuppence, the farmer had the consumer by the necktie. The retail establishments brought what stuff the farmer liked to unload on them. And the consumer ate it. And since the farmer had more or less of a monopoly he could command good prices. So he could very well paddle his own canoe.

Loss of milk in transit was a serious affair to John Bull, farmer, before he organized

But recently science has made an omelet of the English farmer's placid orbit. It has placed steam power, electricity, and cold storage at the disposal of mankind. It has enabled the British consumer to eat meat canned in Chicago or frozen in New Zealand. The consumer does not have to eat the produce of Farmer John any more. In fact, he began to get quite rude to John, and to put his thumb to his nose and spread his fingers out fanwise.

For import trade is a vast organization, and such great organizations as Lipton's and the Home and Colonial Stores (whose shops are in every village, town and city of the kingdom) were buying butter, eggs, bacon, cheese, tinned meats, and frozen mutton all over the world—in Denmark, in Holland, America, Australia, and New Zealand. And they were buying in huge quantities, calculating quality and price to a fraction. And the money gathered in at the English villages and country towns no longer went to the farmer. It went to the headquarters of these great organizations, and thence was distributed throughout the world, either in dividends or as payments to be invested in the agriculture of foreign rivals.

So the long-headed ones among the English farming community began to realize it was up to them. But even then few persons were more antagonistic toward a farmers' union than the farmers themselves. The average farmer who had not yet read the handwriting on the wall did not want to be interfered with. He had a horror of rules and regulations. He wanted his own little puddle, and to splash when and where he liked. Which was, perhaps, quite commendable from the point of view of healthy independence.

BUT however deserving this quality, it did not cut much ice with those big distributors and industrial caliphs who were just aching to give John's tail one good, hefty crack. And the leaders of the farmers' movement were quite aware of it. They worked hard pointing out to John the peril of the "multiple shop," and offered a solution of the difficulty. And the farmers gave their brains a course of Swedish, and began to see daylight. And so it came to pass that the germ of organization became impregnated and flourished exceedingly.

Once the idea was planted, it did not take so long for John to "rumble" things. It gradually dawned on him that there was something in this organization thing. Alongside this vast multiple-shop machine, the production, sale, and distribution of his own agricultural produce created barely a ripple. So far as the produce trusts were concerned, the British farmer didn't exist. And it got John warm under the collar. For if the farmer had goods to sell he had to compete with the rest of the world at the trust's head office, and even then his produce had to be in large bulk and of an even quality. In short, organization was setting the pace, and John hadn't got even his second wind. So he told himself if he wished to survive he must organize—and jumped with both feet.

Now, when the farmers' movement was first launched there was the very natural fear that the big industrial coöperative people would lead the farmers the "devil's own dance" by organizing their own farms and making the farmer a mere employee. But this did not materialize to any great extent. The experience of most of the societies and trusts that tried the experiment was not encouraging, and it certainly was unsound from the point of view of a constructive policy.

THE farmers found that by organizing to buy as well as sell they were able to compete favorably with their rivals. Scientific buying, they found, was as essential as scientific selling. Instead of buying at retail prices and selling at wholesale cost, organization enabled them to reverse this order of things. And that, they decided, "was th' stuff to gi'e 'em." But had it not been for those few stout hearts who had the courage of their convictions, and who placed themselves at the head of those farmers seeking relief from the jostling, pushing, highly organized trusts, the British farmer might still be wallowing in his own rut of inefficiency. And up against the highly specialized machine of the multiple-shop people his own unorganized efforts would have been feeble, futile, and fat-headed.

The salient points in organization for farmers was brought home to John by the stout props of the [CONTINUED ON PAGE 14]

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Joada or Jail

The story of a colored swain who was the perfect escort and courtly gentleman—until the cops arrived

By J. Frank Davis

Illustrated by Gaar Williams

"I MOS' always eat three lamb chops w'en we have 'em foh dinner, don't I, Miz Fahnswo'th?" queried Almanzar, cook and general houseboy at the Farnsworth home.

His mistress, knowing by experience exactly whither this was leading, looked up inquiringly and said:

"I suppose so."

"An' lamb chops is sho'ly awful high. Last ordeh was seventy cents for nine li'l' chops. 'At's mos' eight cents apiece, an' three is twenty-fo', an' all the potato an' vegetables an' dessert I'd natchully eat would cost you lots mo' than two bits, Miz Fahnswo'th."

"Where are you going to get your dinner if I give you a quarter?" Mrs. Farnsworth asked. "Going over to eat with your mother, so as to save the money for to-morrow?"

"No, mam. I thought I'd ask er girl to go to 'at Chinese restaurant on Brickel Street an' have some chop sooey. 'At Chinese restaurant is pretty nice place, Miz Fahnswo'th. Lots of cullud folks eat theh."

"Fifty cents for a supper for two the night before Juneteenth!" Mrs. Farnsworth exclaimed. "Gracious, but you're an extravagant boy! How do you expect to have enough money for the picnic to-morrow?"

"I got some money save' f'om las' Sat'day—dollah an' thuty cents," Almanzar told her. "An' I don't guess Mista' Fahnswo'th would give me any less to-morrow mawnin' than he us'ally does on Juneteenth, do you, Miz Fahnswo'th? He give me dollar las' yeah, an' dollah yeah befo' that."

"Mr. Farnsworth gives you too much money," she said briefly. "Maybe he won't give you a cent; you haven't been worth anything since last Saturday, anyway, and you probably won't be worth anything before Thursday. Your feet will be so sore Wednesday, from dancing all day to-morrow, that you'll go around groaning and expecting me to let you off from about half of your work."

"No, mam!" Almanzar assured her. "I don't expec' get soah feet this year. I ain' goin' weah new shoes lak I did las' Juneteenth, an', besides, my bes' shoes I got now ain't too tight foh my feet—much."

THERE was moderately sound business sense in Almanzar's dinner proposition; he certainly would—with chops as the principal course of the family meal—eat more than twenty-five cents' worth of food. With inward amusement, Mrs. Farnsworth recalled that the decision to have lamb chops that night had been made at Almanzar's own suggestion. Put in the form of a distinct concession, she agreed to let him have a quarter.

There is a paragraph in certain school histories to the effect that all slaves were set free by President Lincoln's Emancipation Proclamation; but Texas colored people do not give credence to any such story. They know that slaves in Texas were liberated by an order issued at Galveston by one General Gordon Granger of the Federal forces on the nineteenth day of June, 1865. "Juneteenth"—white people also pretty generally use the colored phrase—is their Emancipation Day, and it is the one day in the year when every Caucasian is supposed to consider the comfort and enjoyment of his negro friends ahead of his own. In San Antonio, where Almanzar lived, the largest park in the city is turned over to the colored people for that and several successive days, and their grand picnic, after the big parade, is something to be planned for months ahead and discussed afterward until the time comes to plan another.

Almanzar had very little to do during the servicing of the Farnsworth's dinner, and he killed time until he could begin washing dishes by running through a new hymnal that the African M. E. Church had just adopted. As leading tenor in the A. M. E. Zion choir, Almanzar would be expected to help lead the congregation in three of the new hymns on the following Sunday.

He was already familiar with the tune of one of the hymns, and he committed the words as he hurried through his work. The chorus, although he did not get much meaning out of it, appealed to him, and he sang it over and over:

"Wherever duty's banners wave,
Stand ever firm; be ever brave!
Fear not the loss of friends of yore,
For Heaven will send you more and more."

"That's a new one, isn't it?" Mr. Farnsworth asked.

His wife, sitting beside him on the front gallery, answered:

"Yes, there's a whole new book of them." Her mind flitted to the morrow. "You haven't forgotten that we must eat downtown to-morrow night? And don't overlook his dollar in the morning."

"I had almost forgotten it. When does he get off?"

"As soon as the breakfast dishes are finished. Some people keep them through lunch, but I don't think it makes up for the wear and tear on the nerves."

"Juneteenth doesn't come but once a year," declared Mr. Farnsworth good-naturedly. "Be glad Almanzar doesn't take but one day. Some of them—the trifling kind—take two or three, and usually wind up in the police station. We'll eat on the club roof, or the St. Francis roof, whichever you say."

"Nigga no gettum chop suey without pay first. Plitty girl—she can gettum. Pay nothin' "

"Let's go to the club," she decided. "Most of our friends will be there. My, it is warm! I wish we were on one of the roofs to-night."

"Suppose we go to a picture show—at one of the ice-cooled houses. Want to?"

Mrs. Farnsworth did.

Almanzar, having completed his work, locked up the back of the house rather better than ordinarily and set forth blithely for the home of his latest girl, Miss Joada Livermore.

He had overcome many difficulties in securing Miss Livermore for his steady company. She was light-colored, rattle-headed, pretty, and twenty, and many youths of the A. M. E. Zion had been rivals for her exclusive favor.

Strictly speaking, Almanzar was not quite justified in claiming Miss Livermore as solely his, even yet; but he felt certain the weight of his courtesies on this day and the morrow would cinch the matter beyond recall. He had invited her to attend the Juneteenth picnic as his guest for the day.

They were to have dinner and supper, and he had hinted at ice cream between meals, and dancing, not to mention incidentals of soda and sandwiches; and, notwithstanding all this, here he was heading for her house to take her to a Chinese restaurant for an extra special outing.

He was very complacent as he thought it over. For a boy to spend money on a girl on June eighteenth was outside all normal experience—it simply wasn't done. The girls would talk some about that, he fancied. He especially wished he could see the expression on the face of Miss Susietta McCoy when she heard of it; the beautiful but fickle Miss McCoy had recently deserted him for a yellow school teacher with spectacles, who had come to town from "up No'th Texas somewheres."

AT NINE O'CLOCK Almanzar ushered Joada into Charley Yet's Oriental Tea Parlors and Café for Ladies and Gentlemen, and with a gallant hand beneath her arm steered her to a desirable table.

Joada took the chair which Almanzar pulled out for her in his best white folks' manner, and went through the form of reading the bill of fare.

Miss Livermore had on a very becoming dress, and she was an attractive girl, anyway. Charley Yet himself approached to take their order. His face was stiffened into even less expression than usual, owing to his having had six thimblefuls of rice brandy since supper.

"We will have two ordehs of chop sooey; an' have it extry nice, please," said Almanzar politely, exactly as Mr. Farnsworth or other white people of his acquaintance gave orders to their servants.

"Fitty cen's," said Charley.

"Yas, suh," Almanzar replied. "Two bits each—I know. Two ordehs, please."

"Fitty cen's," the restaurant keeper replied. "I gettum money now; then you gettum chop suey."

For a second only Almanzar considered this; then he produced from his vest pocket a half-dollar and showed it to Charley Yet.

"Oh, I got the money, all right," he said. He dropped it back into his pocket.

"Fitty cen's first," Charley said. "I gettum fitty cen's, then you gettum chop suey. Gettum money first—flom niggas."

Almanzar struggled with rising emotion. It was all right for Charley Yet to ask him to show some money, but to ask a sober colored man, as well dressed as he, and with a girl as obviously nice as Joada, to pay it, was quite beyond either justice or reason. His words, when he found speech, were rather lame:

"I ain' 'at kind of folks," he said. "I always pay for w'ateveh I ordeh." He paused. "Ain' you goin' get it?" he asked, at a loss just what to do.

Charley had been observing Joada with the leering eye of a wicked old reprobate, and he smiled and winked at her as he said: "Nigga no can gettum chop suey without pay first. Plitty girl—she can gettum. Pay nothin'. Any time she like to come."

THE service plates in Charley Yet's establishment were made to withstand buffetings, and the one in front of Almanzar could have fallen to the floor a dozen times and never shown a nick; but it shattered into a thousand pieces as Almanzar brought it down on the defenseless, unqueued crown of Charley's bald old head.

Almanzar was five feet eleven inches tall, and weighed one hundred and eighty pounds, and he beat Charley Yet to a resistless standstill before the cook, who came from rearward [CONTINUED ON PAGE 12]

How a Poultryman Came to Own "Single G," the Greatest Harness Horse

By Jonathan Brooks

This is Single G in action at his two-minute gait. Single G, so named because of the white G on his forehead, is the world's greatest harness horse. He is owned by Will Barefoot, a poultryman of Cambridge City, Indiana, who inherited him as the get of Little Gyp, an old pacing mare he picked up on a country road. He has refused $15,000 for him. Note that in this picture Single G has all four feet in the air —"flying." He is eleven years old, has been raced for eight years. He is here seen being driven by Ed Allen, who drove him to his world's records. Single G will race on the Grand Circuit which begins this month

IF YOU go to Cambridge City, Indiana, to learn something about an animal called by most horsemen the "greatest harness race horse" the world has ever seen, anybody in Cambridge City can tell you all about Single G, 1:59, son of Anderson Wilkes and Little Gyp. Should you stop at Ed Barry's restaurant for some fried chicken, which is a good idea, and ask Ed any questions about all those pictures of horses on the wall by the clock, he will point out that they are all photographs of Single G, "The best horse there ever was." This may be a strong statement, but every man, woman, and child in Cambridge City, the home of fine horseflesh for three quarters of a century, will vouch for it stanchly.

Single G is the only harness horse, trotter, or pacer that ever covered three mile heats in a race in an average time better than two minutes. He is the only pacer that ever, after setting his mark at two minutes in a race, went on to lower that record twice in races. He is the only pacer that has paced, in two minutes or faster, in races in three different years. He holds the world's record for a mile over a half-mile track, having paced the Des Moines, Iowa, track in 2:01.

THESE statements, and many others like them, may be accepted at their face value, or they may be traced back to the record books, where they will be found to be accurate. Readers who, in these days of motor cars, think back to the days of Star Pointer, Joe Patchen, and John R. Gentry, when fast pacers are mentioned, may be inclined to dispute these statements, but the facts are against them.

The harness horse world has of late been stirred to resentment by claims on the part of the breeders of runners that Man o' War is the greatest horse the world has produced. Publicity accorded the feats of that wonderful thoroughbred have set them talking of the performances of Single G. The "Horse Review" nominates Single G, this son of Anderson Wilkes, as the selection of the harness horse world for comparison with Man o' War. It says:

"We sincerely believe that were the facts presented to a jury of unbiased horsemen the verdict would be in the pacer's favor. Great as the thoroughbred has proved himself, his racing career has covered only two seasons, whereas that of Single G has covered no less than eight consecutive campaigns."

This declaration is set forth, not to start or partake in an argument, but to show that harness horsemen unite in proclaiming Single G the best their share of the turf has produced. The farmer boy who used to talk of trotters, free-for-alls, and breeding now has a son who discusses cylinders, carburetors, and tires, but the story of this great horse should hold the interest of both of them.

Will Barefoot has been in the poultry business in Cambridge City, Indiana, some forty years, and knows about all the farmers within twenty miles of the town. For most of these forty years he has covered a fraction of eastern Indiana behind a good trotter or pacer. He has bought and sold poultry on most of the farms in his part of the State, and swapped horses with many of the farmers.

Years ago, while out on a trip north of Cambridge City, he bought a roan pacing mare called Little Gyp, by Shoofly Gyp, paying $250 for her. That was in the days when many business men, as well as farmers, owned a horse or two that could step, and not only owned one but drove him in the races at the county fairs. Mr. Barefoot raced Little Gyp with some success, giving her a mark of 2:15¼ over a half-mile track.

There came a time when Little Gyp went lame in one hip. She was so lame that she had to be swung in a sling from the rafters of her stall. A year's treatment brought her out again, but she always "went a little short on that side," as Mr. Barefoot describes it. About that time Anderson Wilkes, son of Onward, by George Wilkes, was purchased and brought out to eastern Indiana from Buffalo by some Hoosier horseman.

"I had lent Little Gyp to a friend of mine, a veterinary, to drive around with," Mr. Barefoot says in telling the story, "and he asked me why I didn't send Little Gyp to be bred to Anderson Wilkes. I thought a good deal of the little mare, and I didn't know whether she could stand it, but he said she could. He said it would not hurt her at all. I sent her. Single G is their colt.

"A horseman from the old Lackey farm came over to see the colt when he was a weanling. He said he would like to name the colt, and I asked him what he would call him. He picked out the name 'Single G' because of the letter G in white on his forehead. I couldn't think of a better name, and we let that one stand. He looked like any other colt as a yearling, but as a two-year-old he showed promise of some speed. Then he had the distemper, and I thought some of selling him.

"Old John Lackey told me not to do it. He said then that I had the making of a two-minute pacer, and that I ought not to get rid of him. The next year, as a three-year-old, he had the fearsey, a kind of itching, dripping skin disease, and I was pretty much discouraged. But I kept him. That year I had him trained and raced, and he won four races out of eight, finishing second the other four times. He took a mark of 2:12¼, and has gone back to the races every year since then."

LIKE many another true horseman, Mr. Barefoot is a quiet, reticent character. He does not talk a great deal, even about the horse he has bred and raced with so much success. In answer to questions, however, he said he had never driven the horse so much as a mile, and that he had never bet any large amounts of money on his racing chances. He appears to take more pride in the speed and splendid disposition of Single G than in the races and money he has won.

"He's always a good-tempered horse," says Mr. Barefoot. "He will fight to take his own part, but he is not quarrelsome or mean. On the track he never pays any attention to the other horses. If another horse beats him once or twice, he treats that horse like a new one the next time he meets him. Some horses will not try against another horse that has beaten them, but Single G goes out and races against all of them, and does his best, no matter whether the other [CONTINUED ON PAGE 18]

Good Blood Tells, But Sometimes Nobody Believes It

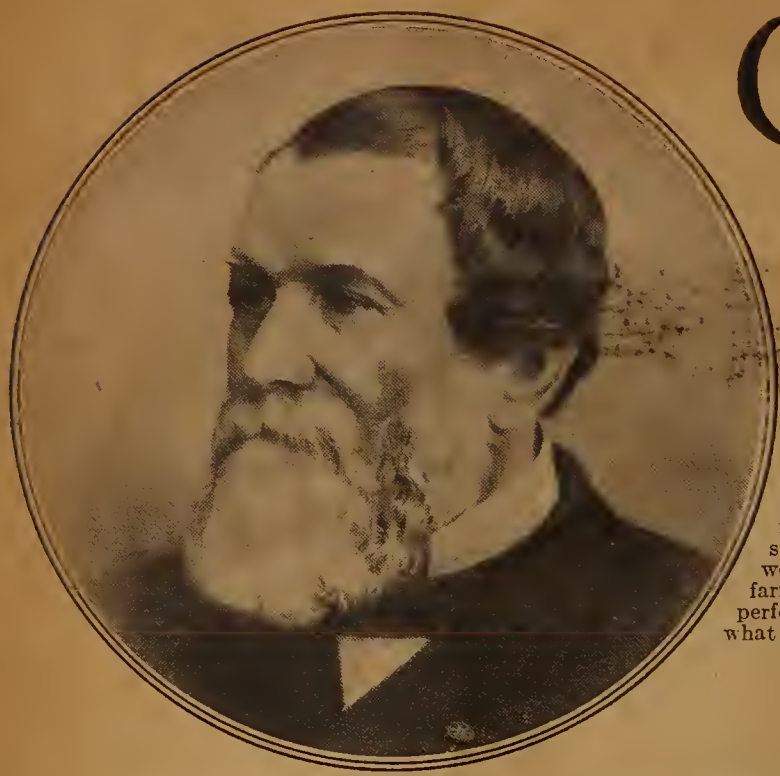
THE Grand Circuit races start this month. When you read this, Single G (who has been nominated by the "Horse Review" as a better horse than the famous Man o' War) will be swinging into another big season for his owner, Will Barefoot, a poultryman of Cambridge City, Indiana.

You probably know Single G, but if you get a chance go to the Grand Circuit town nearest you this fall, and see him race. It should be an inspiring sight to anyone to see him and realize that great horses, like great men, come unheralded and unsung from the ranks of the commoners. "Society" horsemen, blind to everything but established pedigrees and blood lines, sometimes turn up their noses at Single G because he is shy on pedigree. But greatness is no respecter of persons. It pops up where you least expect it, putting the professional and ingrown blue-bloods to rout, and smashing the traditions and family-tree fictions so carefully compiled and nurtured by our best little tuft hunters and toadies, who tug the forelock and scrape the foot to whatever is branded "established greatness," forgetting, in their sublime asininity, that it is to the strength and simplicity of the common ranks that Nature has recourse for the materials of new greatness to replace the faded aristocrats who are too weak and shilly-shally to do anything but live on the reputations of dust-dissolved ancestors.

There is good blood to be found among the "unknowns" as well as among the "knowns."

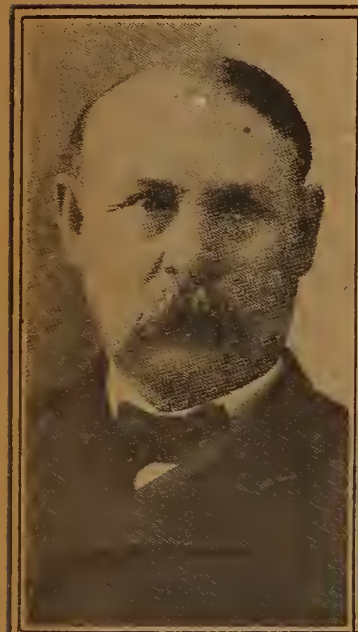
THE EDITOR.

Great Farm Inventors



BY USING their heads to solve labor problems years ago, these men, most of them dead and gone, save you time, labor, trouble, and money on your own farm every day. Do you do as much for yourself? This is Cyrus McCormick. He invented the reaper in 1831, when he was twenty-two. The day he tried it out on a Virginia wheat field, the neighbors stood around and sneered and laughed at him. He worked in poverty on his small farm another ten years before he perfected the machine. You know what it means to you to-day.

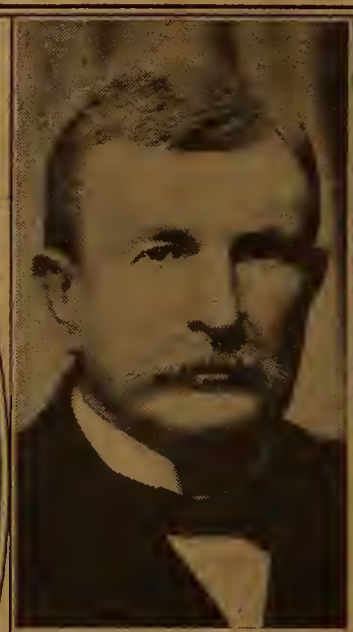
THIS man, Christian Huygens, 241 years ago invented the first gas engine—the same engine, in principle, that to-day runs your automobile, light plant, tractor, and other power farm machinery. Sit down and try to figure out how much you owe him. Huygens was born at Hague, in 1629. He interested the King of France in the idea of telling time by machinery—the first clock. He called it an "automaton." Huygens went insane in Paris, in 1695, from overstrain.



WILLIAM WHITELY invented in 1858 a combined mower and reaper. He was a queer citizen. Once in a race with reapers he unharnessed the horses and pulled the reaper himself. He made and lost millions of dollars on his machines. He exhibited a reaper made of rosewood and gold; his carloads of reapers were accompanied by brass bands. He flung the reapers of his rivals on the junk heap, and gave their owners his own make instead. He ate nothing but pies for half a week. And he holds a record among reaper men for his inventions, with 125 patents to his name.

CARL GUSTAF PATRIK DE LAVAL is the man who invented the cream separator. Born in Sweden, in 1845, he was the son of a soldier, a captain in the famous Dal regiment. After years of practical engineering, he became interested in separating cream from milk by centrifugal force as applied to the revolving barrel of milk. In 1878 he took out his first patent, founding the American business five years later.

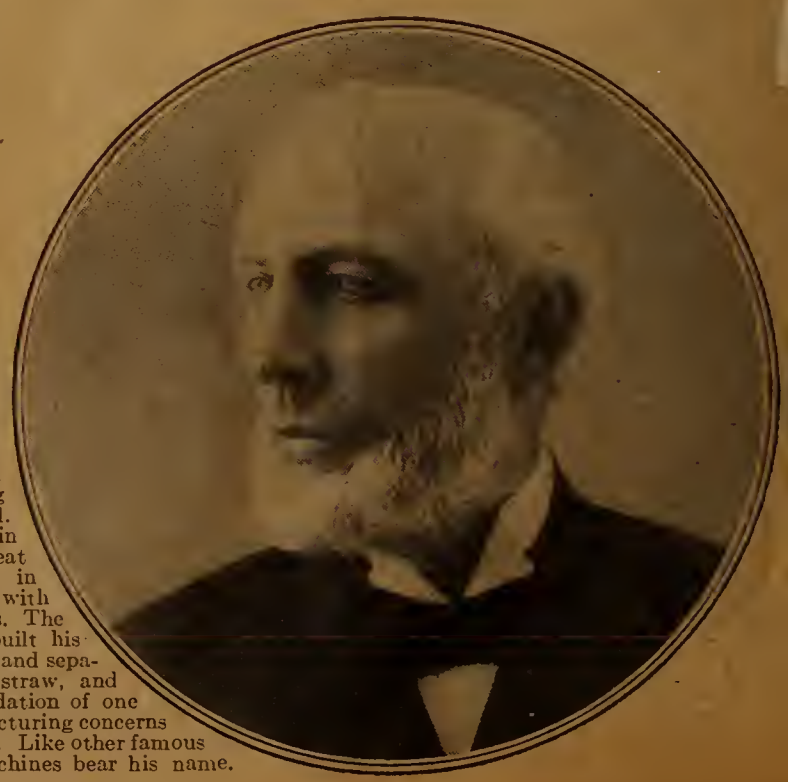
THE earliest and most famous of all American inventors is doubtless Eli Whitney, whose cotton gin revolutionized the cotton industry. Born near Worcester, Massachusetts, 1765, Whitney was more of a mechanic than a farmer, making chairs for his neighbors as a boy; and at twelve, even a fiddle. After four years at Yale he went South to teach, and there began his work on the cotton gin, which was to fill the rest of his life with patent wranglings. During his last sickness he devoted all his time, when not suffering too much, to the invention of surgical instruments to relieve his own pain.



BENJAMIN HOLT started as a maker of wagon spokes, and later, of wheels. Then he invented a combined harvester and the famous caterpillar tractor. Holt was born in New Hampshire, had a public-school education. In 1871 his firm moved to California, where one brother had already paved the way, though Holt did not follow until 1883.

THE inventor of the wheat binder, John F. Appleby, started his career doing chores for a dollar a week. But all his wits during these years were at work to find some way to get machinery to do his work for him. He contrived a knotting machine when he was seventeen, and a young school teacher loaned him $50, but lost his nerve and wanted it back. After the Civil War Appleby made a machine that bound a couple of sheaves before it broke—which was enough, however, to convince one of the spectators to back him for a thousand and start him on his way.

IN THE dairy industry Dr. Stephen M. Babcock stands as one of the leading figures because of his invention of the Babcock test, which supplied the means of gauging the worth of the individual cow as a producer. Dr. Babcock made his discovery in the laboratories of the University of Wisconsin thirty-three years ago, at the time when the dairy industry of America was in its infancy. Here he is seen standing by the original Babcock tester. This picture of Dr. Babcock was taken in Madison last fall.



JEROME I. CASE went west from Oswego, New York, in 1842 with six threshing machines for capital. Up to this time the grain in the region of the Great Lakes was threshed in winter by being beaten with flails on the barn floors. The following year Case built his first machine to thresh and separate grain from the straw, and thus started the foundation of one of the greatest manufacturing concerns of its kind in the world. Like other famous inventors, several machines bear his name.

Being Firm With Father

Just how to treat one's parents is a big problem for a growing boy

By Strickland Gillillan

I HAVE given deep thought to the matter of the lenient neglect with which many children treat their parents. While fathers and mothers have gone on trying to discipline their offspring, those same parents have been permitted practically to grow up wild and do pretty much as they pleased. Men and women are but children of larger growth, and they keep on needing discipline as long as they live. Yes, a heavy responsibility devolves upon far-seeing children who have at heart the best interests of those wayward forbears. I often wonder if the latter realize what a quantity of heartache they cause their anxious progeny!

I had a father who was well-intentioned and good-hearted, but headstrong and impulsive. There were times when, through lack of strength and in the interests of caution and my own physical safety, I gave way and let him have his whims, even though it cost me pain. At such times I would patiently hold myself in, and hope against hope that a day might come when I could make him see things differently. I knew he had the right sort of material in him, if ever I could contrive to apply a little discipline in the right way. Owing to his strength and certain father vs. son traditions that had prevailed in our family from away back, I had to be very discreet in applying whatever discipline I, in my superior wisdom, might believe to be essential to his best interests.

At one time, I remember, I had been having a particularly trying lot of trouble with him. From each of these clashes of will he had emerged triumphant, and I had emerged smarting. I was a smart person, but I can truly and literally say he was a smarter. He had large, calloused hands that had a smartening effect on whatever they touched with the degree of vigor he had no difficulty in summoning to his aid.

How to reclaim him from the error of his ways was a problem [illegible] my waking hours. [illegible] latest previous *impe*[illegible] will, as I lay on [illegible] ished me on an [illegible]—I thought and thought of [illegible] in which the necessary chiding might be slipped to him in an impressive way without interfering with my own subsequent sedentary practices. A brilliant idea came to me. I turned it over and over—though I necessarily excused myself from turning over and over with it—and could see no flaw anywhere. Psychological principles far beyond my years were involved. But my intellect had been stimulated by the recent painful eventuation of our differences, and I believed my plan both water-tight and feasible. Then I went to sleep with the sort of feeling that must come to great generalissimos when they have solved a master campaign against the foe.

The next morning, having a little leisure (owing to some wholly strange combination of farm circumstances), I took down the old family gun—a former Enfield army piece that had been operated on for rifles and had them removed. This weapon had probably greatly impeded the progress of some Union soldier on the way from the first battle of Bull Run, for it was a heavy thing.

I TOOK the old evacuated umbrella ferrule that served as a charger, filled it twice in heaping succession with good black powder, and poured all this into the gun. I firmly forbore to ram this material. Then I took newspaper wadding and pushed it gently—oh, so gently—down the barrel, until it rested but lightly on the black grains at the bottom of that cylindrical dungeon. This done, I took a rather heavy handful of shot and poured it after the other trouble ingredients, ramming that part of the load until the gunstick bounced out of the muzzle. Then I saw that the tube was filled with plenty of priming powder, put a good percussion cap—a little copper hat—on it, and happily hung the old piece back on its leather loops above the kitchen door. I thought, with Mark Antony, "Mischief, thou art afoot," but not for a moment did I give it permission to "take thou what course thou wilt."

It had to take just one course, and that had to be the course I myself "wilt," or I'd be effectively wilted.

At midday dinner I stopped eating for a moment, listened, then got up and went to look out of the front window. Coming back, I reached up, wordlessly, to get down the gun. Father was a natural-born hunter, and to touch the gun was the same to him as touching any part of its web is to a spider. [CONTINUED ON PAGE 13]

The gun came to the paternal shoulder—Heaven preserve my parent! "Pow!" "Blam!"

You Can Save Your Tires by Home Repairing

By J. S. Chapman

TO THE average small-car owner of limited means tires are the greatest expense of upkeep, especially if he lives in a rural district where good pikes are rare. In such a locality even a new tire will show bad cuts and jags after only a few miles of running. Loose rocks are the cause, and many roads around small towns have patches composed of this material.

Damage done by these small stones is only slightly less than that done by broken glass. The usual result to the tires is a small patch of rubber tread totally removed, or a semicircular cut leaving a flap of loose rubber. These deep cuts are the beginning of sand pockets. Deep cuts expose the fabric, which in a short time wears through, and a blow-out is the result. Cuts of this nature, unfortunately, do not look bad—not nearly so bad as many less harmful bruises and scrapes—so they are neglected. Thousands of tires are wasted this way every year.

Such cuts look formidable to the owner inexperienced in making his own repairs. It is useless to insert tread filler, so he sends the tire to the repair shop or lets it wear as it will. Shop vulcanizing costs from $3 to $5 and is entirely unnecessary if the cut is taken in time.

Any tread cut up to two or three inches can be quickly and successfully repaired at home with one of the small gasoline vulcanizers now on the market. Tire-vulcanizing to the uninitiated seems a difficult process. It is really simple to make a thoroughly satisfactory permanent repair on any part of the casing, excepting rim cuts in the tire fabric.

The main thing is to take the cut in time. A tire that is cut through the fabric must be sent to "the shop," but if only the rubber is damaged the home vulcanizer is sufficient.

First, thoroughly cleanse the cut with gasoline. Then, with a sharp penknife, trim all jagged edges and loose ends. In some cases a piece of tread which is not torn clear off may be stuck back into position by revulcanizing, but for holes up to an inch in diameter it is better to remove all loose rubber. Next, slightly bevel the edges of the hole with the knife. This gives the new rubber more surface.

The next step is to cover the entire cut with a rubber cement, made especially for vulcanizing work. At least two coats must be applied, and it is well to leave each coat dry for fifteen or twenty minutes. If there is time to spare, three coats would be even better. These should not be applied too thickly. When the last coat is dry enough not to stick to the fingers—it may be tacky but must not be wet—it is then time to apply the compound or filler.

This is unvulcanized tread stock. Though a small quantity is usually supplied with the repair outfit, it is better to buy it in pound or half-pound rolls from a motor accessory dealer. If the hole is large and the portion of tread to be replaced is thick, the stock may be cut into pieces roughly the size of the hole, and packed in layers. The corners and edges of the hole should be filled by cutting thin strips of the stock and pressing them into place with a toothbrush or similar strong non-metal tool.

If the compound is warmed slightly before using, it will be found more plastic and easier to handle. Do not allow the filling to protrude above the surrounding tire surface, but make it as level as possible. Slight inaccuracies are not important, as the rubber will run together in the heat of vulcanizing.

All that remains now is the placing of the vulcanizer. Usually it is attached to the tire by means of two hooked bolts. Just insert a piece of waxed paper between the tread and the vulcanizer. To test the vulcanizer for correct heat, wet the finger and touch it to the top of the iron after it has been lighted about ten minutes. It should hiss at the touch.

The time required for cooking a patch is frequently underestimated. It can accurately be found by experiment only. A deep hole will require half an hour or more while small holes will require proportionately less. Notice, I say a *deep* hole. The time of cooking should be gauged by the depth of patch, and not by the surface size.

When the vulcanizer is removed and the tire is allowed to cool for a few minutes, the rubber in the patch should be tested with the finger nail. If it is possible to leave an impression, the rubber is not cooked sufficiently. If, on the other hand, it is not possible to make an impression, it has been cooked too long. If the job has been done correctly, any impression you make in the patch should not show when you remove the pressure.

RUBBER in a perfect repair should of course be the same consistency as the rest of the tire—that is, soft enough to receive but not to retain an impression. If the patch is undercooked the vulcanizer should be replaced and the cooking continued.

There are small gasoline vulcanizers on the market ranging in price from $2.50 to $3.50 that will practically last forever. The only additional cost is for tread stock. Gasoline is a small item, as two tablespoonfuls will cook a large patch. As a rule, a measure is provided with the outfit. Repair work may be done in the evenings or on rainy days, to avoid interfering with other work, although it takes little time.

The great advantage in repairing tires in this way is that no time is wasted in taking the casing from the rim. The car is simply jacked up, and sufficient air let out of the tire to enable it to conform to the vulcanizer when it is screwed on.

> THE city sits like a parasite, running its roots out into the country and draining it of its substance. The city takes everything to itself—materials, money, men—and gives back only what it does not want.
>
> L. H. BAILEY.

"How I Sell My Farm Products Direct to the Consumer"

Prize Letters by Farm and Fireside Readers

First Prize Letter

Won by J. A. Martin, R. F. D. No. 1
Huntington, West Virginia

I AM five miles from town, have 50 acres of rough land, only myself and the wife to work, except a man for fencing or building occasionally, and I have found direct selling spells the difference between a jolt wagon and a car for us, between oil lamps and gas, between a hand pump and modern plumbing. For I have these things, while my neighbor across the road, who works as hard as I, has the same kind of land but more of it, has two strapping sons to help, does mixed farming, wholesales his products, and spends the winters drawing water and hewing wood, but joy-rides in a jolt wagon.

Eggs are my stand-by; I market them twice weekly in summer, once in winter. Guaranteed fresh, clean, and graded for size, I feel justified in asking top retail price for them. I average 100 dozen a week, and make from five to eight cents profit by retailing them. We have two cows, and sell about 12 pounds of butter a week, at 10 cents on the pound above wholesale price. I also take a few gallons of buttermilk each trip, and have everything engaged.

I find my egg route a ready market for everything I can produce. I have a red raspberry patch that nets me $100 a year, sold mostly by the crate for preserving. Usually have strawberries, but they froze this year. Raising my own chickens to replace the older layers, I have the surplus cockerels to sell for fryers and when I have a call, we dress them for our customers.

Sometimes I have a little extra garden truck. We have raised a wax pole bean the last few years that cans beautifully, and these go, a bushel at a clip, to some old stand-bys. One year I promised two gallons of wild plums to a lady for jelly, and when they ripened earlier than I thought, rather than disappoint her, my wife made up the jelly, selling it to her at actual cost. In short, we net our trade. It pays, too. If someone wants unsalted butter, we make it. She pays for it, and should get what she wants. We have sold nearly everything—home-made sausage, black walnuts, apple butter; nothing sells better than apple butter. This fall we should have from 75 to 100 baskets of grapes for market.

High wages have kept us from hiring help, causing us to diversify among a number of small products, and we have no intention of working ourselves to death. The first six years I was on this place every dollar went back into it—orchard, fences, hen houses, quarters for growing stock, gas lines and water pipes—but these last four years we have lived decently, not overworked, and sent a $500 Liberty bond down into the bank box yearly on an investment of approximately $5,000. Most of our neighbors who specialize in some line like ours are also contented.

This is "the Missus and the Moo (Lillie)," both of whom contributed largely to the success made by J. A. Martin, of Huntington, West Virginia, whose first-prize letter appears on this page

We have used no fancy packages, no printed advertisements, but I have taken stuff I *knew* was first-class direct to the back door, and sold it. I have asked top prices, but I always give liberal weights and measures, and often go out of the way to get something a customer wants.

His Banker Helped Him

Second Prize—Won by R. H.
South Charleston, Ohio

FOR several years I have followed the practice of raising spring, or hothouse, lambs. When I first began to market my lambs in the early spring—often long before Easter—I had considerable difficulty in finding a market which paid a price sufficient to warrant the extra care and attention which this method of sheep-raising required. The only outlet I had was that offered by a few commission men in a neighboring city, and as they controlled the market in our territory they also controlled the price.

My banker spent a great deal of his time in the city, and it occurred to me that perhaps he could help me with my marketing problem. I found that he knew personally the managers of two of the best hotels in the city, and he gladly took the matter up with them. The result was I am now receiving over twice what the commission men are offering, and have a steady market. So big has been the demand of these two hotels I now have three neighbors raising hot-house lambs and shipping with me.

Our wives have lately become interested, and this same banker has arranged for the sale of the butter from five farms to one of the hotels at a fancy price. Not the least interesting part of this deal was the visit of one of the hotel managers last spring who spent the day with us helping in the butchering and packing of our product.

I find my banker my best business friend. He wants me to succeed, and even goes out of his way to make that possible.

Doubles His Hog Profits

Third Prize—Won by Allen G. Cummings.
R. F. D. No. 3, Battle Creek, Michigan

I WOULD like to give you our experience in selling farm products direct. We raise a large number of hogs that will weigh about 150 or 200 pounds by the first of December. The reason for selling at 150 pounds is that the first 100 pounds is the cheapest gain on a pig, and then the small cuts of meat sell better than the larger ones. Another reason is that the younger the pig the less fat you get on the fancy cuts of meat. In selling to the public, this is a big item, I have found.

We kill two pigs each week throughout the winter. Occasionally we have bought a few in order to hold our trade, but it is our aim to sell only our own product. These pigs are dressed on one day, and the rest they are cut up just as they are in the meat market. We have pork steak, pork chops, pork loin roasts, spareribs, etc. The lard is tried out and put up in three-pound pails and stamped "Home Rendered Lard." There is a big call for this.

Our sausage is made from the trimmings that we get from the steak, chops, etc. This is printed in two-pound prints, wrapped in oil paper, and put into pasteboard cartons. It sells very well. There are some bone pieces that do not sell easily, so they are [CONTINUED ON PAGE 21]

Miss Gould Talks to the Girls

YOU girls who are starting off for college or going away to high school, will you forgive me for these few "don'ts"?

Don't take too big a trunk. Have your clothes smart, becoming, suited to yourself and your life at school, but don't have too many of them. Don't overdress. Don't get the look of a Christmas tree by decking yourself with too many ornaments. Don't forget that your clothes—the way you wear them, the condition you keep them in—do tell tales about your character. Don't be bold in your manner. Remember that modesty is one of woman's loveliest traits.

Don't overlook the fact that the first impression is generally a lasting impression. See that the impression you make is a pleasing one.

Off She Goes to School

I KNOW you want to put your best foot forward, and keep it there, when you're off for school. That's why I am suggesting to you this smart little dress. It will help to give you the confidence you need. Some undertaking, you may say. But read its description and I think you'll agree with me.

Material, a soft wool jersey stockinette or fine serge. The color, Malay brown—a medium-brown tone which will be a rival of navy blue this autumn. The style—well, the long straight overblouse and side-plaited skirt can be depended upon for smartness.

The blouse shown in the picture can be made as a slip-on, for the pattern provides a slashed front opening; or it can be opened at the back. There are two ways of finishing the overblouse at the bottom—straight and bound with the self-fabric, or scalloped. The collar may be white organdie, tan crash, or a bright shade of duvetyn, such as orange, grotto-blue, or poppy-red. In addition to the plaited skirt, which is hung from an underlining, the pattern provides for a two-piece skirt.

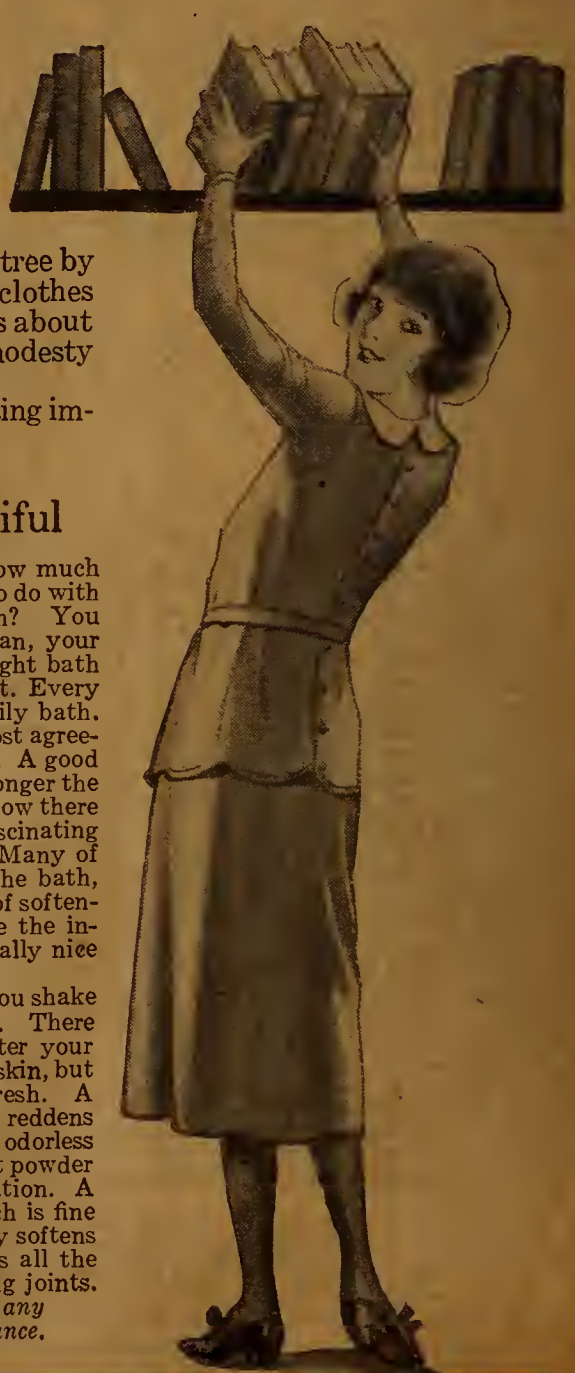
The pattern number is FF-4068—Girl's Overblouse Dress. Sizes, 14 to 20 years. Price, twenty-five cents. Send order to Pattern Department, Farm & Fireside, 381 Fourth Avenue, New York City.

Bathe—to be Beautiful

HAVE you girls ever thought how much regular and right bathing has to do with a pretty, fresh-looking complexion? You know if your body isn't really clean, your face will show it. The Saturday-night bath as an institution is a thing of the past. Every girl should make a habit of the daily bath. Lukewarm water is apt to be the most agreeable, with a dash of cold at the end. A good pure soap and a bath brush are no longer the only requisites of a modern bath. Now there are bath salts of all kinds, most fascinating to look at and fragrant to smell. Many of them give a real tonic quality to the bath, and also have the added advantage of softening hard water. Those which have the invigorating odor of balsam are specially nice for the girl away at school.

There is also a new powder that you shake into the bath to soften the water. There are all sorts of powders to use after your bath that are not only good for the skin, but also make your whole body feel fresh. A reliable one, especially if your skin reddens and roughens easily, is a medicated odorless powder. And still another is a light powder which prevents any odor of perspiration. A wonderful new bath oil comes which is fine to use after a salt rub, as it not only softens and refines the skin, but also takes all the pain out of tired muscles and aching joints.

Write Miss Gould if you want any help about your personal appearance.



"A Few of the Things I Have Learned About Building a House"

By E. A. Shilton

Formerly president of the Shilton Lumber Company at Fairfield, Montana

HERE is one of the most helpful letters on the subject of building that it has been our good fortune to see. And we came across it quite by accident. A few weeks ago we visited the place LeRoy Baldridge is building up in the Westchester Hills. While there, Baldridge mentioned a letter from a friend who was in the lumber business, that had been invaluable to him in building his house. We asked to see it. Now we print it.

Many of the short cuts mentioned by the writer, E. A. Shilton, are so practical that we thought it might be worth while to pass them on to you. Our corresponding editor on agricultural engineering, Professor F. W. Ives of Ohio, also read the letter, and has made a few notations as to his own opinion concerning some of the things mentioned.

During the war, Baldridge, to whom Shilton wrote the letter, was with the French Army, and had a roving commission to visit all fronts, where he made some of the most striking sketches that came out of the war. Most "bucks" in the American Army will recall his cartoons, which appeared in "Stars and Stripes." Incidentally, Baldridge will illustrate a story by Sophie Kerr, entitled "Neighbor's Kindness," which will begin in one of the fall issues of FARM AND FIRESIDE.—THE EDITOR.

"DEAR Roy and Caroline: Your two good letters came this morning, and I am moved to write at once because of hints dropped in Roy's letter about difficulties with the house. This will be a rambling letter, but you may get a few ideas on building which will be worth while.

"In the first place, you say that the $5,000 house became stuck up and aspired to the $16,000 class—which is all too common with building nowadays. In that connection, there are certain economies in building which can be practiced, and others which should be avoided, but the man who is selling the lumber will often overlook the economies because he wants a bigger profit. I do not know what sort of a house you want, whether with wood, stucco, or brick exterior; but with any of the three the inside structure is the same, and there you can save in places.

"If all of wood, you can save on the exterior by buying short lengths in siding, whether pine or cedar. The short lengths will not be noticed in the completed house, and inasmuch as the joint comes at the point of a stud (which is the upright piece of dimension in the walls) it will not make the house less warm. Against the studding is nailed the sheathing boards; these need not be of high grade. Get the lowest grade boards you can get which have not too large knots, and which have what is called a tight knot. You see their function is to keep out the wind, make the wall rigid, and furnish a nailing surface for the siding, and poor grade is immaterial.

"ONE of the most important things, if not *the* most important, about the wall of a wooden house is the paper insulation. [Amen!—F. W. I.] Usually the sheathing is nailed to the studs or uprights, and then the paper is applied, and after that the exterior siding. In our country they used what was called red rosin paper. Do not use it; it will last possibly five years. Insist on blue plaster board or good tar felt, which, while costing a bit more, will last for thirty or forty years and will keep a warm house warm. It might cost you $10 more for the whole house.

"By all means have a tar paper put under the shingles if they are to be of red cedar. The red cedar shingle is unsurpassed when dipped or sprayed with creosote. Under the shingles should be put some tar or asphalt paper. [This will be satisfactory only with creosoted shingles.—F. W. I.] The reason for this is that when a beating rain drives the water upward it will not come through and spoil your plaster; it will encounter your tar paper and run off or stand and be evaporated. This is true of snow. Under the shingles the sheathing or roof boards should be a bit better grade than in the walls, because they have to sustain weights that the walls don't. Speaking of shingles, the best treatment is to dip them, before laying, in either a raw creosote or a refined creosote shingle stain. The raw creosote is very cheap; it is blackish, and smells unto heaven, but it serves the purpose.

"About as good a plan as dipping, and one less expensive in time and labor and material, is to wait till the roof is on and then spray it with this raw creosote; the best sprayer is a hand sprayer similar to the potato bug sprayer; it does a good job. [Get a good one; the cheap variety takes too much time.—F. W. I.] A roof should never be painted after applied, but staining is all right. If you are going to use a composition or colored shingle instead of a nature kind, I would recommend one of the standard varieties made of asbestos. You can buy raw creosote cheapest at a gas works.

"Perhaps I am talking to no point, but I will continue, as this may be helpful to you in some small way. Proceeding on the theory of a frame dwelling: Continuing with the walls—The studs should not be too far apart; 12 to 16 inches is best, the 16-inch being most common. These studs usually are 2x4's or 2x6's. Here is a point where you can make your house very warm without much cost. It is the refrigeration method. You can purchase at your hardware store some good lining material and put it in between these studs; or, what is cheaper and probably just as good, insert either tar paper or plaster board paper in between.

"This is what I mean: If your stud is four inches through, you take lath and press the paper against the stud just two inches from the outside sheathing, and therefore two inches from your inside plaster, and nail the lath to the stud, thus holding your paper rigid. This makes an extra air space between your sheathing and your plaster, and air spaces mean warmth in building. If your architect urges some fancy insulation material, refuse and use the best grade of building paper, which will cost one tenth as much and will accomplish the air-space result.

"NOW, the most important thing about paper applied either *inside* or *outside* the building is that, being meant for an envelope, it be a complete one. To pay for paper and its application, and then have an ignorant carpenter leave one tear open in the paper, is to throw a good part of your money away. They slap this paper on, and when it tears they let it tear, figuring that the siding will cover the tear; but the moment the paper is torn for one foot on one wall the insulation of that wall is greatly impaired.

"Insist in your specifications and by personal inspection that the paper is intact, and have it inserted that wherever torn it must be covered by a new piece of paper. Caroline can stay on the job and watch! These little things make the difference between a big coal bill and a little one. If you are putting paper in between your studs as I have recommended, the big thing to see is that at sides and top and bottom it is absolutely tight; otherwise a stray breeze will find the hole, and then of what use is your work? Specify these matters.

"Now as to the foundation. All foundations should have footings. By that I mean that at the bottom there should be a small float of concrete run out from the foot of the wall to prevent settling. Before building, find out about the water table, or you may have ground water in your cellar.

"If they are to make your cellar of concrete solid walls, insist that the concrete be well puddled in against the wooden forms; if this is not done, when the forms are taken away your inside wall will be very rough and may leak at times. Were I building, I believe I should make the walls of hollow tile, provided the ground conditions as to heaving, etc., did not prevent. It will make a much drier and warmer basement, and vegetables will not freeze; I doubt if it will cost any more. [Tile are pretty expensive right now.—F. W. I.] If of concrete, be sure to specifiy the mixture—that is, see that there is enough cement in it; this is a place where they skimp, and skimping means ruin.

"CONNECTED with the matter of your basement is that of floor joists or the planks that run crossways of your house and hold up the floors. First, do not skimp on the size of these. Do not use anything less than 2x10's; 2x12's are better; 2x8's will let your floor sway like a drunken man before your fifth baby is born. The difference in cost is very little.

"Now to one of the most important points in your house: Where the floor joists meet the wall, there is of course a hiatus between the floor which is running horizontally and the wall running vertically. Many houses [CONTINUED ON PAGE 10]

The Home Where Payne Wrote "Home, Sweet Home"

Here is a picture of the home John Howard Payne had in mind when he wrote "Home, Sweet Home." It is the house he lived in when he wrote the song. You can see it to-day if you happen to visit East Hampton, Long Island, New York, where it stands. The old home is now owned by G. H. Buek, vice president of the American Lithographic Company, New York City. It is rich in relics to remind one of the author who gave the world his famous song. Many of his original manuscripts and writings are carefully preserved there. The old grist mill in the foreground was built about 1690, and is one of three still standing in that section of the country. In spite of its age it is in wonderful repair, and if canvas were spread over the arms of the fan it could be turned into the wind, and again made to grind its grain as of old

It Doesn't Pay to Plow Your Corn Too Often

By George Fiske Johnson of Indiana

IN OUR community there is more difference of opinion as to the proper depth and frequency of cultivating corn, and the best implement to use for the work, than on almost any other farm operation. Jones says the more you cultivate the better, and that he would plow his corn every week if he had time. His field gets at least eight cultivations during the season. Smith doesn't agree with Jones at all. He never cultivated more than four times, and the last time he just scrapes the ground. If weeds develop later, he cuts them off with a hoe. Smith and Jones have about the same kind of soil, and both get profitable crops during a normal season. Now the question is, which practice is best, that of Smith or Jones?

How often do you cultivate your corn? Mr. Fiske says most farmers cultivate too much, and tells why in this article

I BELIEVE that the primary value of cultivation is in the control of weeds. Regardless of the soil, the cornfield should be so tilled that weeds cannot grow to rob the plants of valuable fertility and give off large quantities of water to the air. I have found reason for this belief during the past six seasons. Some say that the main purpose of cultivation is to keep a mulch on the surface to prevent evaporation of the soil moisture. I meet this argument by pointing out that one large weed growing near a hill of corn will steal more moisture in one day than the soil mulch beneath it will save in several days. To bear out this point, an experiment in Indiana was tried with adjoining fields of corn, one of which received no cultivation except that the surface of the soil was lightly scraped with a hoe whenever weeds appeared, and the other received the standard tilling consisting of four cultivations with a two-horse cultivator. This experiment was carried on for four years, the field that was scraped yielding 56.3 bushels per acre and the field with four cultivations yielding 57 bushels, a difference of .7 bushel in favor of cultivation.

My conclusions are that where the soil preparation has been thorough before planting, shallow surface cultivation to prevent the growth of weeds is all that is needed, and that there is often a real objection to stirring up the ground to any considerable depth, for the root system is liable to be disturbed. The shallower the cultivation and the more level the surface is kept, the better, so long as weed growth is prevented.

There are many times, of course, when deep cultivation is necessary. With bad weather for several weeks after planting, weeds will often get a start, and only deep cultivation will eradicate them. But at other times there is little to be gained by deep and frequent cultivation, either at the beginning or at any other time during the season. Especially should one be careful about deep cultivation after the corn gets to be waist-high; for if the root system is cut off, more moisture will be kept out of the plant system than will be saved in a dozen mulches.

About Building a House

[CONTINUED FROM PAGE 9]

nowadays have a crack at this point, and cold floors result. It is not a visible crack but by putting your hand at the top of the cellar wall you can usually acquire a frost bite. I should say that nine-tenths of heating troubles result from poor work at this point. To avoid this, they make a sort of box all around the top of the basement walls. The floor joists are set on top of the partly completed basement wall, and then this box proposition made by interspersing short pieces of plank between the joists. Then these series of boxes are filled with soft concrete. [Brick would be better than concrete here.—F. W. I.] This is called beam-filling, and you can see that the cold will have to penetrate concrete.

"The one thing to remember is to beam-fill not clear to the top of the joist, but to within a quarter of an inch, for if the joists should shrink, the inserted concrete would push up your floors. The concrete doesn't shrink. Another thing about the joists: They used to run bridging between all of them. It should be done now, for it will keep your floors from creaking.

"YOUR floor sheathing should be run crisscross to strengthen the building. Up in your attic there should be a few crisscross rafters, if you are in a windy vicinity, to keep the house rigid. Between the floor sheathing and the oak or maple floor you should have paper and a good grade of No. 1 deadening felt. As to your floors, you will discover that both oak and maple are high-priced. Any other floor is out of the question, unless you use linoleums, which are high-priced too. Before you select either a plain red oak (just as good as quarter-sawed) or a No. 1 maple, inquire as to the price of three-sixteenth-inch floors. The usual thickness is three-eighths inch, or twice as thick, but that is very much higher priced. Often by using a cheap grade of resaw on top of your paper, and then this thin maple or oak, you can get as good a floor at much less price. Maple floors are plainer, whiter, and are less trouble to care for; but oak is prettier and will keep you waxing it. Most other floors will splinter.

"In the plastering of the house, there are ways of applying it. It can be applied to wood lath, to plaster board, or to metal lath. I believe that wood lath is the cheapest, and is as good as the others if one point is followed: Plaster is very wet. Wood lath are very dry. After the rough coat of "mud" is put on, it dries in a hurry, and in drying is apt to shrink away from the lath. To combat this tendency, a big barrel of water should be kept in the room, and before the lath are applied they should be left to soak in this barrel, and then just before slapping on the plaster they should be again wet with a brush. Then the plaster and the lath will dry at the same rate. Provide that at least four days intervene between the first coat and later coats.

"Before any plaster goes on, see that between each lath there is plenty of space, and see that each lath is nailed at every stud. Poor lathing means falling plaster. The plaster is held by binding in between the lath, and if the latter are too close together there is no binder.

"And so I could go on all day, but this must be tiresome by now. I am no architect and no builder, but I have kept my eyes open and have actually superintended some building, and know that these points differentiate a good house from a very poor one.

"In plumbing, a lot can be saved by having the bathrooms and the kitchen fairly close, and on the inside walls of the house. For every hot-water pipe there must be a cold one, and the material and labor are very high now. If you will heat your house by hot air, it is well to have the hot-water tank in the bathroom; it will keep it warm and will not be unsightly if painted white.

"Have two means of heating your water in the basement—one a coil in your furnace or heater, and one a separate laundry stove. There is only one laundry stove that is any good, and that is the type in which the entire jacket is a hot-water receptacle. Do not have less than a 40-gallon tank for hot-water heat. Do not try a gas heater or any fancy doo-dads; a water jacket heater of big capacity will save time and money and will keep your cellar dry in summertime.

"IN INSTALLING the kitchen sink, have Caroline stand up alongside the wall, and put the sink at the height to suit her—or yourself. [Usually 34 inches.—F. W. I.] Many kitchen backaches come from low sinks which are put in according to some Irishman who has a squatty wife.

"In the bathroom install a lavatory with a separate waste, not one with a chain that breaks off the plug and has to be fished for; they cost little more and are convenient. Have enough water pipes running through the house; do not tap one line twice, so that one or the other will "cuss" at water delay. Be sure that the plumbers make the hot-water lead into the hot-water boiler enter at the top, and not the bottom, or you will have to wait till the whole business is hot to get any hot water. In this way you draw off hot water 'as it is made.'

"I do not know what kind of heat you plan. I do not know the size of your house and its arrangement. But I do know that you will be stunned by the figures on heating. You will discover that hot-air heat is quoted at a much lower figure, and will of course be tempted. The best heat is hot water, but it is infernally high. The next is steam; but it, too, is high. If you have observed some, or rather all, of my safeties as to insulation, and your house is fairly compact, hot-air heat is all right. But only a certain kind is all right and, as I have studied it, I will lay down some of the indispensable conditions.

"If your house is of five rooms, all thrown together, a pipeless furnace will heat it nicely. This is one with one pipe situated in the center of the central part of the house, the one pipe conducting the cold air back and the hot air up. This one pipe is a double-barreled affair, the hot air coming up the middle and the cold air descending the sides, the two being insulated. They are very cheap as furnaces go, and do very well for a very compact establishment. Some people doubt that they will work, but we installed a half-dozen, and when put in the right room in the house they all worked admirably in 30-below-zero weather. In any hot-air furnace the big thing is to buy for quality and for heavy castings. Never buy a hot-air furnace with a steel heat jacket; they are worthless.

"If you have several rooms up-stairs, or a house not thrown together, I would advise a pipe furnace, which means a hot-air pipe to each room, and perhaps two to the living-room. But there is one absolutely indispensable principle to these furnaces: wherever you put a hot-air inlet, install a cold-air outlet; make them equal. They will all tell you I am wrong; even the bloomin' furnace man, but I know I am right. They will want to put in a large cold-air inlet from the outside of the house. Let it be done, but insert a stop in it, so that it can be kept closed most of the time.

"The point is this: The velocity of your hot air will be governed by the velocity of the cold-air return, and if your cold-air returns are smaller than your hot, you have decreased the hot-air velocity by the proportion of the difference in capacity, and your house will heat that much slower. I have seen this worked out in a score of instances. Have the cellar high enough so that as the pipes are taken off the top of the furnace they will run in an upward direction and speed the heat on its way. These are plain laws of heat.

Here is C. LeRoy Baldridge himself. He had just finished putting together a new trick folding bed when this picture was snapped

"And, finally, with any heating system *allow, allow, allow* for extras; if you have a 15,000-cubic-foot capacity in your house, get a 20,000 furnace, etc. In August a man will save $40 dollars on a furnace, and in January he will swear, "I would give $500 this morning for a warm house!"

"So saying I will conclude. I have wasted much of your time and fooled along on what you probably already know. However, the intent has been as friend to friend, and I wish you luck. Get your specifications written and signed and then watch the builder.

"Yours, EARLE."

The foundation for the Baldridge house was blasted out of solid stone. The house itself was built entirely of field stone harvested right on the place. It is on the brow of a hill overlooking the Hudson at Harmon, New York, near John D. Rockefeller's estate

Why She Succeeds

LOLA SULLIVAN of Poplar Grove Farm, Trimble, Tennessee, a poultry-club girl, now fourteen years old, has been making a good record since she was ten years old. In that time she has contended against many disappointments because of diseases, storms, and "varmints." Notwithstanding all her troubles, the little girl owns $50 worth of war savings stamps, and has a bank account of nearly $300. She concludes her annual report for 1920 with these lines:

All things considered, from beginning to ending,
Hatching and catching and feeding and tending,
Chasing and killing and scalding and pickin',
There's a great deal of work about raising a chicken.
Watching the hen while she's doing the hatching,
Watching her, too, while she's eating and scratching,
Guarding 'gainst hawks and 'possums and rats,
Driving off crows and dogs and cats,
Ready all day to give something a lickin',
There's a great deal of work about raising a chicken.

Weekly News Letter.

What the Experiments at Rothamsted Taught Me About Nitrogen

By Charles E. Thorne

Formerly Director of the Ohio Agricultural Experiment Station at Wooster

HOOS FIELD lies northeast of Broadbalk Field, and corners with it. The soil of the two fields is apparently of the same general character. Barley has been grown continuously in this field since 1852, in four strips, running lengthwise of the field, each of which receives the same basic treatment throughout its length, but all are cross-dressed following with different materials as shown by the plan:

Plot No.	Basic treatment	Cross Treatment: O-None	A-Ammonium salts	AA-Nitrate of soda	C-Rape cake
4	Complete minerals				
3	Alkali salts				
2	Superphosphate				
1	None				

The following table gives the average yields obtained in this experiment for the period 1852 to 1917. The land was fallowed in 1912, so that the averages are for sixty-five years:

Plot No.	Treatment	Yield per acre, bus.
1-0	None	14.3
2-0	Superphosphate only	19.8
3-0	Alkali salts only	15.6
4-0	Complete minerals	20.0
1-A	Ammonium salts only	25.4
2-A	Superphosphates and ammonium salts	37.8
3-A	Alkali salts and ammonium salts	27.9
4-A	Complete minerals and ammonium salts	41.3
1-AA	Nitrate of soda only	29.3
2-AA	Superphosphate and nitrate soda	42.8
3-AA	Alkali salts and nitrate soda	29.9
4-AA	Complete minerals and nitrate soda	42.4
1-C	Rape cake only	37.9
2-C	Superphosphate and rape cake	40.1
3-C	Alkali salts and rape cake	36.7
4-C	Complete minerals and rape cake	40.0

Superphosphate (acid phosphate) is used in every case at the rate of 3½ hundredweights, or 392 pounds, per acre. The "alkali salts" have consisted of 200 pounds sulphate of potash and 100 pounds each of the sulphates of soda and magnesia. The ammonium salts have been sulphate of ammonia or a mixture of sulphate and chloride. Both the ammonium salts and the nitrate of soda have been calculated to carry 43 pounds of nitrogen per acre.

It will be observed that superphosphate has made a very different showing in Hoos Field from that in Broadbalk Field—a difference ascribed at Rothamsted chiefly to the character of the crop. Director Russell, in commenting on this outcome, writes:

"Barley is spring sown, while wheat is autumn sown. Phosphates have a marked effect on spring-sown crops here because they cause a rapid root development, which of course is essential for success; further, they hasten the period of maturation, again very necessary.

"Generally speaking, wheat does not respond to any great extent to phosphatic fertilizers in this country, excepting only in the northern districts, where they are applied with the express purpose of hastening the harvest. The reason is, however, that wheat often follows roots or potatoes, both of which receive heavy dressings of good quality superphosphate—five to seven hundredweights is not uncommon—the roots are often eaten on the land by sheep so that the phosphorus which they take up is partly returned to the land, and of course much of the added phosphate is not taken up at all."

In both Broadbalk and Hoos fields it is evident that nitrogen has been the dominant factor in producing increase of crop. This point will be brought out again in the discussion of the Woburn and other experiments, all of which agree in showing that until nitrogen is furnished, either directly or indirectly, all other methods of fertilization fail in their purpose; while, on the other hand, nitrogen is of comparatively small effect unless supported by an available supply of phosphorus and potassium.

In Agdell Field, of about three acres, wheat and barley, instead of being grown continuously, as in Broadbalk and Hoos fields, have been grown in rotation with each other and with swedes and clover or beans, wheat, and swedes, barley, fallow, wheat. Beans are grown as a substitute for clover when that crop fails.

THE swede crop is left continuously unfertilized on one third of the land; with a mineral fertilizer, made up of 500 pounds superphosphate, 500 pounds sulphate of potash, 100 pounds sulphate of soda, and 200 pounds sulphate of magnesia, on one third; and with a complete fertilizer, containing 200 pounds ammonium salts and 2,000 pounds rape cake in addition to the mineral fertilizers above mentioned, on the remaining third.

The entire area is given to a single crop each season, so that it is only once in four years that a direct comparison can be made between the wheat or barley in rotative and that in continuous [CONTINUED ON PAGE 12]

IN THE United States there are 6,449,242 farms. Of these, 3,924,851 are operated by owners, 68,512 by managers, and 2,455,879 by tenants.
Congressional Record.

How the Pine Squirrel Fooled the Magpie

Story and Illustration by J. Clinton Shepherd

MY GRUB STAKE was running low, and it was twenty-three miles to the nearest town. Since I did not relish the journey I began to conserve as much as possible.

On my last provision trip I had packed out a sack of potatoes—a delicacy when your fare consists mainly of game, sheepherder's biscuit, and black coffee. Of the potatoes I had eaten sparingly. I counted the remaining ones, and, allowing myself two a day, estimated that I could postpone going to town at least another week.

Two days later I was surprised to find that I had only a few potatoes left. I would have been inclined to suspect pack rats had it not been for the fact that they had never been in evidence in my cabin on the North Fork. At any rate, I decided to keep an eye on my provisions.

The next afternoon, while cleaning my rifle, a slight noise in the kitchen attracted my attention, and I peered cautiously through a chink in the logs. On the edge of the potato basket sat a little pine squirrel tugging away at a potato much larger than himself. After repeated attempts, he dragged it to the edge of the basket and dropped it to the floor. The noise frightened him. He ran to the door, hesitated on the step, and then peered back. Apparently reassured, he came in again and, sinking his teeth into the potato, began to back slowly, pulling his load after him.

ONCE at the base of a hollow tree a new problem confronted him. A squirrel can come down a tree head first, but cannot back up it, especially with a heavy load. He considered the problem, and then made a few unsuccessful attempts to carry his burden up the tree. Finally he buried it in a niche under a flat rock, probably to be left until he could devise a way to take it to the main base of supplies. Upon investigation I found that the hollow tree contained several bushels of cones, leaves, and seeds. That store, representing tremendous work, convinced me that the four or five pine squirrels around my cabin were working with definite plans from morning to night.

They are as industrious, cheerful little animals as one will find in the West. During their busy season, from July or August until after the first blizzard, they waste practically no time in useless occupations, except to scold and bark at human beings who cross their pathway. In this they take keen delight.

A few days later I opened a box of dried apples, and, finding them moldy, decided to donate them to my little friend. I placed the box under a tree close to the door of my cabin, where I could sit and watch without being observed. It did not take one of them long to locate the apples, nor to notify his family and friends that they must store this delicacy before the magpies found it.

MAGPIES are great rivals of the pine squirrel in their uncanny ability to locate a store of provisions. Indeed, I believe they take delight in hindering the pine squirrels' storing of food. However, the squirrels are not beyond reproach, for in the spring they spend most of their time robbing the nests of magpies and other birds.

When the squirrels began to carry away the apples, I noticed that they did not go to the hollow tree, but, in order to make haste, took each piece out to the end of a pine branch and hid it at the base of the pine needles, which were proof against the thieving magpies. It was a clever idea, indicative of logic rather than instinct.

The next morning the clusters of pine needles near my cabin were loaded with dried apples. By night the industrious squirrels had transferred the whole stock to the main base of supplies.

I believed that my potatoes would go unmolested in the future, as apples were certain to be more palatable; yet, in order to remove temptation, I hung the basket where they could not reach it.

How About It, John?

JOHN DAWSON, who weighs about 250 pounds in his socks, was hungry when he came to Mandan, Michigan, last week. He looked around for a restaurant sign, but could see none. However, he saw a shop across the street with the word "Lunches" painted on the window, and he waddled over.

"Do you feed people here?" he asked the proprietor.

"Yeah," said the proprietor, looking him over, "but we don't fill silos."

Farm Bureau News.

Here is a farm laborer's cottage, of the brick-walled, straw-thatched type, frequently seen in England. This particular cottage is at the eastern edge of Barn Field, Rothamsted, where mangolds have been grown, with and without manures and fertilizers, since 1876, and other root crops for the twenty years previous. The plants shown in the foreground were of recent planting

Experiments at Rothamsted

[CONTINUED FROM PAGE 11]

cropping, but the work has extended over so long a period that the differences due to seasonal variation have been practically overcome. The average yields for the eight rotations, 1884–1915, are tabulated in the accompanying chart.

AGDELL FIELD, ROTHAMSTED

Average produce per acre for the last 8 rotations, 1884-1915:

Crop	*Unfertilized*	*Mineral fertilizer*	*Complete fertilizer*
Swedes, lbs....	1,543	22,562	43,960
Barley, bus....	15.38	20.59	27.91
Clover hay, lbs.	963	4,010	3,760
Wheat, bus....	22.29	32.14	32.55

On the continuously unfertilized land the root crops have suffered most, the average yield for the last eight courses, to 1915, amounting to but 1,543 pounds per acre. Clover has been grown in six of the eight courses, with an average yield of 963 pounds. Wheat, following immediately after clover, has averaged 22.3 bushels, or practically the same as on the land receiving the smallest dressing of nitrogen, with minerals in Broadbalk Field, and barley, coming two years later, has averaged 15.4 bushels, or a bushel more than the unfertilized yield on Hoos Field.

THIS small yield of clover has apparently increased the wheat crop by 10 bushels, as compared with the yield of the continuously grown wheat, but on the land which lies in fallow, instead of growing clover or beans, the unfertilized yield of wheat has been about nine per cent larger than after clover.

The mineral fertilizer has raised the yield of swedes to 11 tons, followed by 32 bushels of wheat, 20 bushels of barley, and 2 tons of clover hay, the yield of wheat being practically the same as that produced by the minerals with 400 pounds ammonium salts on Broadbalk Field, and the yield of barley being identical with the yield produced by complete minerals on Hoos Field.

Apparently, therefore, the roots of clover that made two tons of hay have furnished nitrogen for the succeeding wheat crop equivalent to that carried in 400 pounds of ammonium salts, together with a considerable surplus for the turnip crop following, but by the time the barley crop has been reached the effect of the clover nitrogen has disappeared, and the barley has profited only by the minerals left over from the turnips.

The adding of nitrogen carriers to the mineral dressing has nearly doubled the turnip crop, as compared with the minerals alone, and has produced a crop in this field nearly 40 per cent greater than the yield given by the minerals alone on Hoos Field. The clover, however, has not yielded quite as much under this treatment as where minerals only were given, and the wheat less than half a bushel more.

On the fertilized land the yields of wheat have been considerably larger after clover than after fallow, so that the fallowing has resulted not only in the loss of the hay crop that might have been grown, but in diminished yields of wheat and barley, while the yields of swedes have been almost the same after fallow as after clover.

Twice in the thirty-two years the clover failed, and was replaced by beans, the average yields of which were 12.57 bushels per acre on the unfertilized land, 38.12 bushels after minerals only, and 32.96 bushels after the complete fertilizer. The wheat crops following the beans were smaller than those after clover.

Considering the three experiments, in Broadbalk, Hoos, and Agdell fields, they demonstrate the fundamental necessity for maintaining the nitrogen supply in the growth of wheat and barley; they show that this supply may be maintained by the use of barnyard manure, where that can be obtained in sufficient quantity, and they show that a considerable part of this supply may be secured by the growing of these crops in rotation with clover. In order that clover might accomplish this function, however, it has been necessary to furnish it with the mineral elements of fertility, and even then the capacity of clover to furnish a full ration of nitrogen has been limited to the crop immediately following. Beyond this first crop there has been a demand for nitrogen which the residues from the clover have only partially satisfied.

Root crops—turnips and beets grown for stock-feeding—occupy a very much larger place in British agriculture than in America and at the beginning of the Rothamsted experiments, in 1843, a field of eight acres, known as Barn Field, was set aside for experiments with these crops. Norfolk white turnips were grown for six seasons, followed by swedes for four seasons; barley was then grown for three years to equalize the soil conditions, and the plots were rearranged on substantially the same plan now in practice, and swede turnips were grown for fifteen seasons, 1856–1870. It was found impracticable, however, to maintain the soil conditions necessary to the successful growth of turnips when grown year after year on the same land, and in 1871 the crop was changed to beets, sugar beets being grown for five years, and stock beets or mangolds, in 1876 and since.

THE interest in these experiments with American farmers will be in part because of their general scientific value, and in part because of the applicability of their results to the sugar beet, which has obtained a foothold with us in some sections and deserves a larger recognition than it has yet received.

In Canada, roots for stock-feeding are grown much more extensively than in the United States, but where corn is at its best it is not likely that roots will ever be largely grown for this purpose, because corn yields a larger quantity of actual food to the acre, and when converted into ensilage it makes a succulent feed that is a close competitor with roots.

The Ohio Experiment Station found it practicable to produce two pounds of dry substance in corn silage at a less cost than one pound in beets, and in feeding for milk the dry substance in beets was found to be no more valuable, pound for pound, than that in corn silage.

The following table gives the average yields per acre recovered from selected treatments in this test for thirty-nine years, 1876–1917, the years 1885, 1901, and 1908 being omitted:

Treatment	*Yield per acre tons*
None	3.49
Superphosphate	4.65
Complete minerals	4.79
Ammonium salts	6.75
Nitrate of soda	9.66
Superphosphate and ammonium salts	6.78
Superphosphate and nitrate of soda	14.74
Complete minerals and nitrate of soda	17.36
Farmyard manure	18.05
Farmyard manure and ammonium salts	22.38
Farmyard manure and nitrate of soda	26.41

These results bring out conspicuously the inability of the mineral elements of fertility on the one hand, and of nitrogen carriers on the other, to maintain a maximum yield of crop, when used independently of each other.

Joada or Jail

[CONTINUED ON PAGE 2]

regions, waving a carving knife, had even appeared in sight.

Joada, at the first attack, slipped out through the door to the street. When he saw the cook and the cook's knife approaching, Almanzar followed her. Someone out in front was shouting, "Poleece!" in a high-pitched voice. As Almanzar emerged from the restaurant, his mind on flight, a mounted officer slid lightly from his horse and seized him.

"Steady, nigger!" he warned in a voice of authority. "Steady! I ain't going to hurt you. Stop thrashin' around!"

While Almanzar paused, dazed, the policeman turned him toward the horse, and with a practiced motion handcuffed him to the saddle horn. A second later the officer was facing the gibbering wreck of Charley Yet and Charley's hysterical cook, with a pistol held competently but not too threateningly in his hand.

"Now, that'll be about all from you," he remarked to the Chinese. "I've got this nigger, and you can come down to court in the mawnin' and put whatever charge you want to against him. In the meantime, drop that knife."

THE wild noises abated, and the officer swung into the saddle. Entirely without noticing Almanzar, he started his horse at a walk toward police headquarters. Almanzar walked alongside.

Mr. and Mrs. Farnsworth, emerging from the picture theatre, saw the policeman and his prisoner proceeding leisurely through the street.

"There's a darky got arrested," Mrs. Farnsworth said. "About as big as Almanzar, isn't he? My gracious, it is Almanzar!"

"We left him doing the dishes," Mr. Farnsworth replied. "How did he ever get time? Well, I'll have to— Oh, I know that policeman. He's Merton; I've met him down at the Shrine."

"Oh, Merton!" he called, as the officer came opposite them. "Just a second. You've got my boy."

"Hello, Noble!" said the policeman. "What's that? Your nigger?"

He looked down at Almanzar with the first interest he had shown in his prisoner.

"What have you been doing, Almanzar?" Mr. Farnsworth demanded.

The answer was shamefaced, but prompt: "Nothin'. No, suh, Mista' Fahnswo'th, I ain' done nothin' er-tall. I was in er restaurant—"

Mr. Farnsworth looked up to the officer. "What did he do, Noble?" he asked.

"Nothing, like he says—except put a chop-suey joint on the blink," the policeman grinned. "Licked the boss Chink, and smashed up the crockery, and had the whole gang after him with knives when I got there. Old Charley Yet's place."

"I suppose you got fresh with somebody. Don't you know you've got to be polite and respectful? Good Lord! Now I've got to go over to the station and get you out. One of these days, Almanzar, I won't do it."

"Yas, suh. But, Mista' Fahnswo'th, please, suh! I am always polite an' respectabul to white folks. This was a Chineyman. An' he insulted my lady."

"How?"

Quickly and with fair adhesion to fact, Almanzar sketched the immediate cause of his assault on Charley Yet. Some sure instinct told him that a straight statement of the case would win him Mr. Farnsworth's sympathy.

His employer, as Almanzar finished the recital, lifted his eyes to the policeman's face. Officer Merton nodded over the boy's head.

"I was thinking," the officer said, "maybe, if you say this is a real good nigger, I might turn him loose right now. You know the chief awful well. You could square me if anything came of it—and I don't think anything would. If the Chinaman insists on making a charge I can phone you later, and you can have the boy before the judge in the mawnin'."

"As a matter of fact, he is a good boy, as they run. I never knew him to get into any trouble, except with niggers, in the three years he's worked for me."

"Just between us," the policeman whispered confidentially, "that Chink has been looking for what he got for a long time. And you can't lay it up against a nigger for lickin' a Chinaman."

Mr. Farnsworth, who liked good negroes and did not like any Chinese, good or bad, agreed entirely with this sentiment. A moment later Almanzar found himself unmanacled and at liberty. Officer Merton, lifting his broad-brimmed hat to Mrs. Farnsworth, cantered on his way.

"It's lucky for you I happened along,"

[CONTINUED ON PAGE 16]

Prize Contest Announcement

How My College Training Has Helped Me Be a Better Farmer

IN THE September issue George W. Brown of Mount Corey, Ohio, will tell how he and Mrs. Brown worked hard and skimped and saved so that their two boys could have an agricultural college education. Mr. Brown is sure that it paid, even if they are still farming the original 30 acres that they started with.

Whether a college education for farmer boys and girls pays depends mostly on the boy or girl. The same is true of boys and girls from the city. The writer spent four years in an agricultural college, and believes that it was worth while. However, I am not now on a farm. FARM AND FIRESIDE wants letters from readers who have been to agricultural college and who are *now* on farms, so that we can help solve the problem for readers who have not yet settled the college question for themselves.

Write us a 500-word letter telling us what *your* experience has been. We will pay $10 for the best letter, $7.50, $5, and $3 for the next best letters, and $2 for all letters that are printed. Give full particulars, and enclose a stamped self-addressed envelope if you want your letter back. Photographs of yourself, your family, or farm will make your letter more valuable. This contest closes Ausust 31st.

Address Contest Editor, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

Two Mistakes Our Ring Made in Buying a Thresher

By W. C. Smith of Indiana

TWO years ago, when our threshing ring bought a small separator with which to do our own threshing, we made one mistake which is more or less common in communities that have tried this plan. Probably we made two mistakes —first, that of buying too small a machine, and, second, we included too many men in the company.

Our experience has shown that the extremely small separator should be avoided, because it is very apt to be overworked, even where but few men are interested in it. The hurry to get a job done, a sudden rain cloud, or the attempt to take advantage of a bit of nice weather when the season is bad, all cause crowding. Besides, there are some men who always hurry when feeding a thresher, no matter how slow they are at other times.

The first year we operated our machine everything was in our favor: the season was dry, the straw reasonably short, and grain threshed out well. Seventeen men had been in our old threshing ring, and they all became stockholders in the new outfit. Our separator cost $1,363 delivered, and we bought a second-hand steam engine for $500, which was a real bargain. Counting our oil, water tank, drive belt, and a few little extras, the outfit represented about $2,000 when it went into the field. We paid back more than half the principal the first year, after the labor and interest were paid. Our work was done when we needed it, and, except for a few minor breaks, we got along better than we had expected.

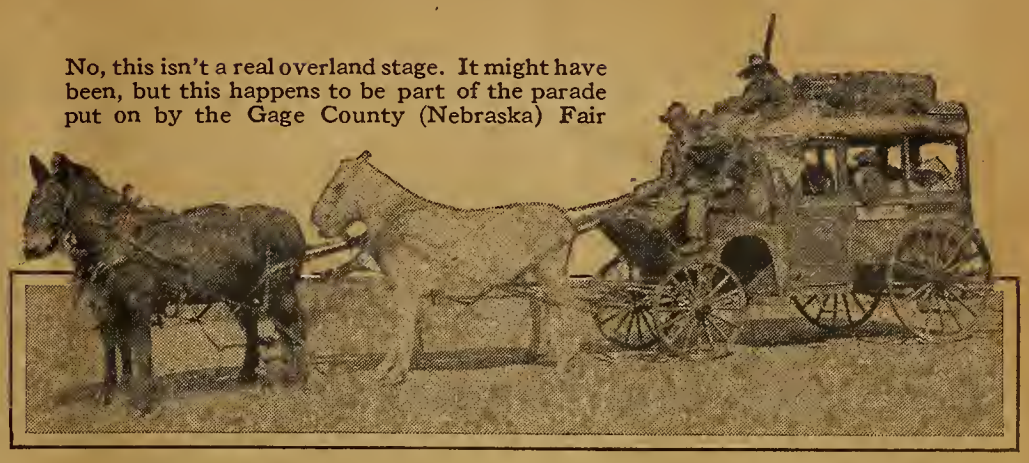
But the next season we began to see that we had made a mistake. Most of the men in our ring grew a small acreage of rye last season, and in addition a considerable acreage of oats and wheat. We had trouble with the rye from the first. We consulted a factory expert, and received much advice from old-time threshermen; but to no avail. The simple fact was that our separator was too small to handle this long, woolly crop, except in a very slow manner. This delay caused some complaint, especially from the men who had no rye. We could thresh rye, but had to go slowly, and, naturally, attempts to crowd things usually proved disastrous.

Then, when we got on to oats or wheat that threshed well, the tendency was to crowd things too much. We had power to spare, so the natural result was—just as it is when any grain separator is crowded beyond its capacity to separate—a wastage of grain. Some of the men who came last began to get worried about their crops, for it looked like we were in for some wet weather; but they stayed with the job rather than use an outside machine.

LAST year we finished a long week behind every other ring in our neighborhood. Even with a smaller number of stockholders, we are sure now that a cylinder at least four inches longer—ours is 20 inches—would have been a good investment. The small size is excellent when grain threshes well, when the straw is short, and conditions are generally favorable. In fact, it will thresh under any circumstances if it is handled right, but the trouble is that even where only a few men are interested there is a tendency to crowd it, in spite of the fact that it is their own grain they are wasting. Furthermore, crowding is so hard on the separator that overhead expense for repairs, labor, and depreciation becomes a considerable item.

After visiting several other coöperative threshing rings that own their own outfits, I have decided that the extremely small separator is most useful where three or four farmers want to utilize the tractor already owned in doing their own work.

The larger machines give much better satisfaction where a number of farmers expect to coöperate in its use. Even then, for maximum efficiency, no more than ten or twelve men should be interested in it. This allows all to thresh out in good time, where the usual acreage is grown (15 to 50 acres on general farms). The investment is not too heavy for any of them to carry; they are better satisfied, and still have help—which in the larger rings sometimes becomes expensive and burdensome—to keep things running smoothly. Then, if there is spare time and members of the company are willing, they can pick up outside jobs, and apply the net profits upon the purchase price of the rig, or declare a dividend in case the rig is paid for.



No, this isn't a real overland stage. It might have been, but this happens to be part of the parade put on by the Gage County (Nebraska) Fair

To Get More Money

[CONTINUED FROM PAGE 3]

First, an adequate false floor must be employed to permit free circulation under the bottom tier of containers. At least a four-inch space is required for this purpose. Second, the load must be packed in such a way that there are open spaces, as regular as possible, between the packages; otherwise the flow of air to the center of the car is checked, and the cool air rises to the top of the car and returns to the ice bunkers without completing its normal circulation.

In loading the lighter kinds of products, such as lettuce, spinach, cauliflower, or peaches, care must be taken not to load clear to the top of the car; it is as necessary to have air space there as at the bottom.

The next thing to guard against is the possible shifting of the load in transit. This of course results in broken packages and damaged products, and often refusal on the part of consignee to accept the car. In loading barrels or crates that would fit too snugly together, there should be liners between the different layers, to provide ventilation and prevent breakage. In addition, the load should always be braced in place, as it is put in, with substantial lumber. Detailed drawings of the methods of loading many kinds of produce may be had from the Bureau of Markets at Washington.

One of the most frequent causes of disputes between shipper and carrier is the difference in count of the packages in a car. Keep an exact tally, as the car is loaded, of just what goes into it.

Occasionally it is desirable to divert a car, while in transit, to some point other than the original destination. When this is to be done, take it up at the earliest possible moment with the railroad representative; have instructions wired at once; and then confirm your instructions in writing, including names of any parties with whom verbal arrangements may have been made.

If, after taking every precaution you possibly can, a shipment is reported arriving in "off condition," or is refused by consignee, there are four definite things to do, and do immediately:

First, have notations showing loss or damage made on freight bills covering shipment. Freight agents are obliged to make such notations, if you request.

Second, file immediately with the carrier a "protest notice and request for inspection." The railroad is required by law, on your request, to make a prompt examination of car or contents arriving in damaged condition.

Third, secure a government inspection report. In all the larger markets the U. S. Department of Agriculture maintains trained inspectors whose services are available to the public, and their reports are legally admissible as evidence in the courts.

Fourth, have shipment unloaded and disposed of to as good advantage as possible, just as soon as there has been time for inspection. Delay will only cause further damage, and tell against you in presenting a claim for damages.

Finally, even if you seldom or never have a full car-lot shipment to make, remember that practically everything said above applies equally well to less than car-lot shipments, and to your share in a car-lot shipment that may be made up by several.

The Fruit Seller Knows

"EEF you musta squeeza da fruit, squeez da cocoanut," a Hoboken fruit vendor admonishes his prospective customers. And Tony is right. No one wants to buy damaged fruit.

The selling value of fresh fruit and vegetable shipments is judged largely on appearance when received. They should be well graded or assorted, packed in the most approved manner, and shipped when weather and market conditions seem most favorable.

In this article Mr. Rockwell tells what he has learned in his own marketing, and also gives some tips picked up at the world's largest truck farm, Seabrook Farms of Bridgeton, New Jersey, where he is now employed. THE EDITOR.

Why We Believe in Our County Fair

THERE were in Nebraska more than fifty county agricultural fairs in 1920. Our Gage County Fair is a good example of a successful fair. The management of this fair surrounded itself with our county's best livestock and grain farmers. It was the combined efforts of these farmers and stockmen that made the fair the big attraction of the year.

First, they made their county farm agent secretary of the fair. Instead of loading him down with all the work, however, every one of the officers and of the executive committee took an active part in the operation of the fair.

The daily program left no idle time for the fair visitors. All the livestock exhibition buildings were filled with finely bred animals. The Boys' and Girls' Pig and Calf Club exhibits were always surrounded by proud fathers and anxious youngsters. The Women's Department and Agricultural Hall attracted interested spectators all hours of the day. During the placing of the awards the judging pavilion was always crowded by interested spectators. The explanations and comments of the judge created new interest and inspiration.

The industrial exhibit of modern machinery and home conveniences was a big show in itself. There were farm lighting plants, power washers, home water systems, and a big display of up-to-date farm machinery. The University of Nebraska had an exhibit on the grounds the entire week, which showed the work of the various departments of the experiment station.

AS THE fair advertisements stated, "A county fair without entertainment is like a swimming hole without water," so the entertainment part of the fair was not neglected. A good race program was offered each day. Nearly everybody enjoys baseball games. Four of the county's best teams played a complete tournament of high-class baseball. There is almost a universal love of good band music. Two bands gave concerts each day.

One of the biggest attractions was the big street parade on the last day of the fair, which was staged by the country schools of the county. There were floats representing the development of transportation, from the spotted Indian pony to the limousine of to-day, with all the intermediate stages. Other floats depicted the grasshopper days, the Lewis and Clark Expedition, old schools and modern schools, country lasses, and other attractive features.

The county agricultural fair fills a place in community life not touched by any other institution. Here farmers show the best they have produced in grain and livestock, wives compare their jam or fancy work with their neighbors in friendly competition, fond mothers parade their babies before the judge in the better babies contest.

Most attractive of all, however, are the exhibits of the work of the boys' and girls' clubs. Whether it be their pig, calf, cooking, or corn clubs, they are always the center of community interest.

L. BOYD RIST.

Being Firm With Father

[CONTINUED FROM PAGE 7]

He turned quickly as I got the old fusee down.

"Whatcha gonna do, Strick?"

"The crows is down on Onstott's fence, an' I think they're maybe suckin' eggs from some stole-out nests our hens has, down there in th' timothy."

"Lemme have th' gun!" was his reply.

"No, Pap, go on with yer dinner! I'll shoot 'em!"

(Dissembler! I wouldn't have shot off that gun for a five-ton truck full of radium!)

"Lemme have that gun!" He had spoken. Willful, spoiled father that he was! That was he, all over! It is wonderful to think of the patience I had had with him. Yet I indulged him in his whim, handed over the gun, and sat down at the table.

In a moment I arose, and slipped to the front window to observe. He was within a hundred and fifty feet of a saucy crow that was swearing and preening and teetering on the top of a fence stake. The gun came to the paternal shoulder—Heaven preserve my parent!

"Pow!"

"Blam!"

The reverberations were long and loud, and echoed back from every little wart of a hill within three miles. To some of these hills, for fear it had missed them, the echo returned and took another rebound for good measure.

MY HEART was in my mouth. Father was behind that cloud of black smoke! Then, as the picric cumulus drifted away, I saw him arising from the wallowed timothy, rubbing his shoulder. Deep peace ruled in my bosom. I sat down to finish my dinner. I knew I was safe if I sat tight. So I controlled my fluttering nerves and did not look up as he entered and replaced Bertha.

He sat down at the table. He was saying nothing, but was doing some of the most clamorous and deafening thinking I have ever listened to. Presently he said with chastened calm:

"Who loaded that gun?"

"I did. Why?" I promptly threw back.

He never told me why. He knew. He knew I knew he had no come-back. He figured, just as I did, that, having offered to shoot the thing off myself, I had cleared my own skirts, and established an alibi. There was nothing he could do. It was a lead-pipe, double-riveted, hermetically sealed, time-locked cinch. I had him where the wool was short. For once filial discipline that really did "hurt him more than it did me" had triumphed!

Yes, parents certainly are a deal of care to their children!

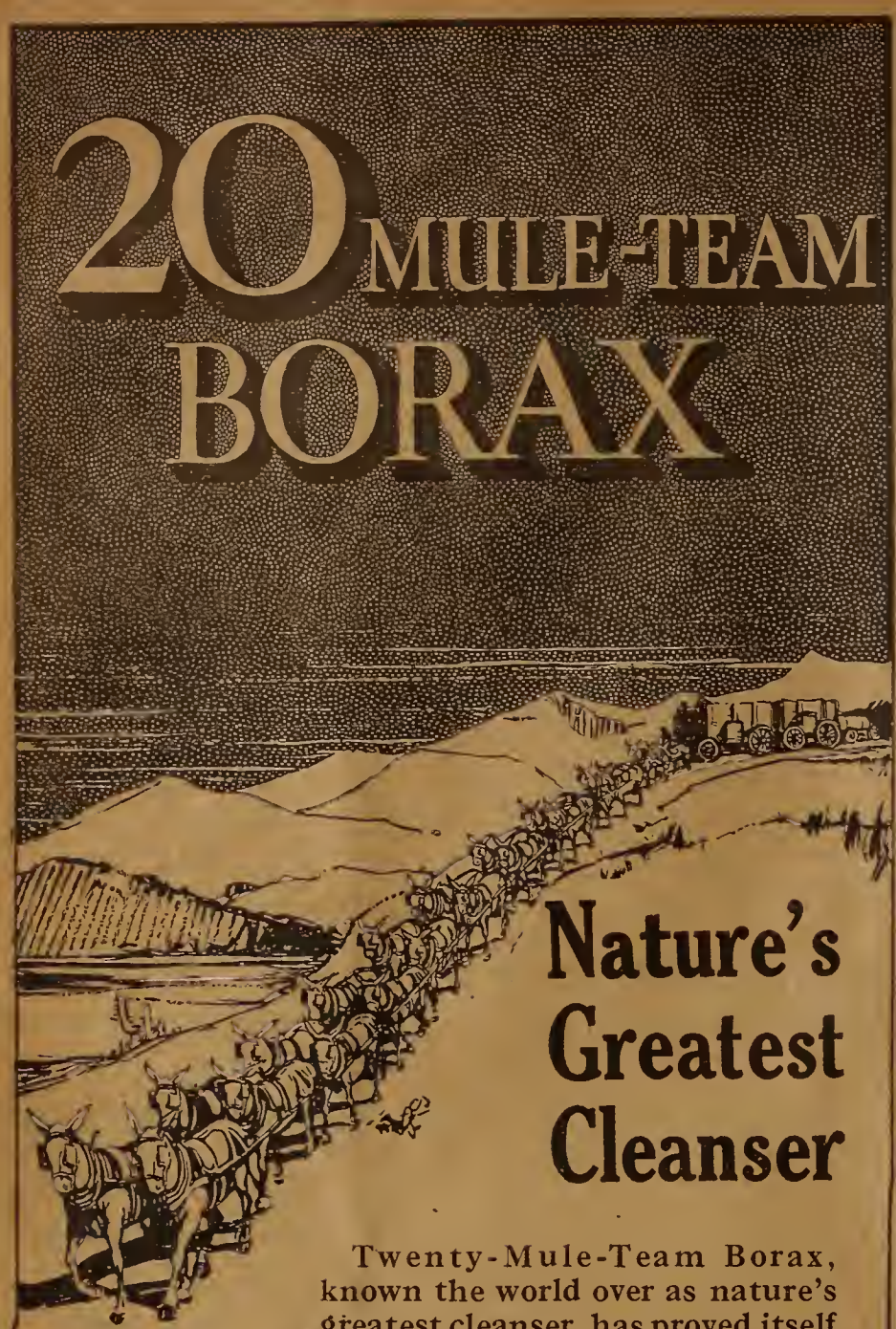
He Sells Hogs by Sample

A UNIQUE plan of selling purebred Poland-China hogs has been worked out by Edwin Houston of Welfare, Texas. He loads some of his good swine into a truck and drives to neighboring county-seat towns, where he books orders.

He guarantees that the animals sold will be as good as the samples in the truck, and ships C. O. D. This novel selling plan has proved very successful. A very considerable amount of publicity is secured on the trip in addition to the sales that are made.

A. P. C.

20 MULE-TEAM BORAX



Nature's Greatest Cleanser

Twenty-Mule-Team Borax, known the world over as nature's greatest cleanser, has proved itself through years of dependable, sanitary service to be the housewife's greatest ally and time saver.

In the dish pan, the wash-tub, the sink, the ice-box, in cleaning silverware, glassware, windows and for a hundred other uses 20-Mule-Team Borax has earned a prominent place in your kitchen and pantry.

Buy it by the case at your grocer's.

Pacific Coast Borax Co.

100 William St. New York

Send for Magic Crystal Booklet.

Girls—Clip the Coupon Get a Beautiful Wrist Watch

HERE is your chance to get a splendid wrist watch—one that you will be proud to own and most happy to wear. The illustration shows the exact size of the watch but cannot do justice to its daintiness. This very style of watch with its pretty black silk grosgrain ribbon, equipped with a sterling silver buckle, is now all the rage in the cities. And you may have one without a penny's cost, if you will just clip the coupon to-day and do the little easy spare-time work that I ask of you.

D. S. STEPHENS
Dept. W-16, Springfield, Ohio

Dear Mr. Stephens: I would like to earn one of your Ladies' Wrist Watches.

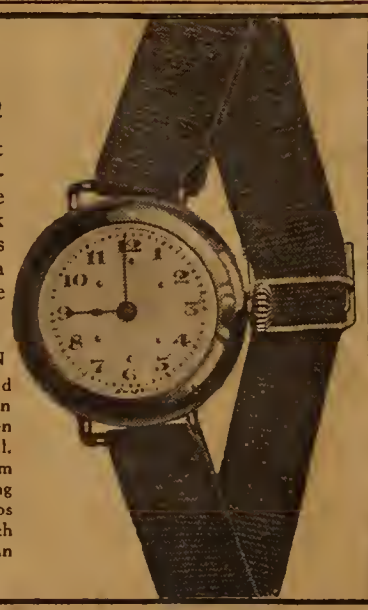
Name.....

P. O......

R. F. D. No..... *State*.....

DESCRIPTION

High-grade jeweled movement. Gun metal case. Open face with white dial. Stem wind and stem set. A fine-looking watch that keeps good time. Each one packed in an attractive box.



Why We Had to Organize

[CONTINUED FROM PAGE 1]

union movement. A farm is a factory (they told John), and a factory must have its raw material at bed-rock prices. Modern industry is organized on a basis of highly scientific credit, calculated to a decimal point. A lot of the middlemen represent an expenditure that is necessary because neither the farmer nor the retailer has been organized. Efficient organization means money saved. Increased production becomes a curse rather than a blessing, unless you have organized distribution. Peddling in industries must disappear—those desirous of continuing the peddling policy must be content to live as peddlers. And so on, and so on.

When the World War came, the Agricultural Organization Society was getting well into its stride. Its job was to organize the farmer wherever he hung his hat. Several hundred thousand farmers had at that time joined the organization known as the National Farmers' Union. The trouble was there seemed to be a certain amount of jealousy existing between the A. O. S. and the N. F. U., although both were out for the good of John. Incidentally, both have done him a sight of good.

A "multiple shop" in London. One of the thousands of its kind that forced the English farmer to take up agricultural coöperation in a serious way

The farmers' union has for its object the legislation and administration of laws both national and local. It seeks to protect the farmer from exploitation, and to promote the prosperity of his calling. The farmer who becomes a union man in England derives many immediate benefits. For one thing, he has free legal aid, for no up-to-date farmer here goes to law without first consulting the union. Cases in which a principle is involved are taken up in the first place by the county association; where an appeal is found necessary, the national union is consulted and its assistance enlisted.

NOT every farmer, of course, is in the union. If he were, there would be a union membership of more than a quarter of a million in England and Wales alone, which has an acreage approximately that of the State of Indiana. But every farmer outside the union—and they are mostly the big landowning squires and barons—is bucked hard by the multiple-shop crowd.

One instance of this which brought the fact hard home to the farmer was seen within the last two years when margarine became the substitute for butter in Britain. The war first brought the butter slump to the island country. The prohibitive price of real butter gave the multiple-shop people the opportunity they had been seeking. Farmers who had done well with butter suddenly found their market unprofitable. The multiple-shop crowd was selling a "near" butter made of ground nuts and copra oil.

THE multiple shops throughout the kingdom—and they run into thousands—were simply flooded with "Creamo," "Deluxo," "Silver Rolo," and other near butter concoctions. The produce trusts were selling these margarines anywhere from 25 cents to 40 cents a pound. They filled their window trims with great yellow margarine designs in stars, roses, dairymaids, and milk churns. And the public bought it. And the farmer was awfully pleased—naturally. And he was still more delighted when he found where the margo ingredients originated.

One big multiple-shop concern that specialized in dairy and farm products and tea, coffee, and sugar, obtained its ground nuts from the neighborhood of the River Gambia. It gave the natives there bolts of calico in return for wads of ground nuts. The natives covered their nakedness and marveled at the simplicity of the white traders who would give beautiful calico for silly old nuts that were anybody's for the asking. And the white traders laughed as they mixed their ground nuts with the copra plant oil and thought how they would crack the tail of the farmer back home. Copra oil, of course, before the debut of margo, was used in England only for the manufacturing of soap.

And so the farmer has learned more than ever how necessary it is for him to organize against such conditions as these. For multiple-shop concerns were enabled to pay 30 and 35 per cent dividends on their margarine profits, so great was the trade in near dairy lines, formerly enjoyed by the farmer. But organization is having its compensations. The farmer is now finding himself more on a substantial footing. The railroad companies, the political combinations, the insurance companies, and divers other alliances that bucked Farmer John Bull in the past are finding it not so easy to play shuttlecock with him now.

The railroads found themselves confronted by a well-equipped executive body that demanded fair transport rates and prompt handling of perishable goods. It was one thing to dump the individual farmer's goods out on a side track for a day or two and quite another to hold up a union man's milk and cattle.

The same with the insurance companies. The first thing the union did for its members was to obtain a

True, the British farmer is represented, pictorially, as forever wearing a jolly, rubicund, contented expression, crimson-hued vest, and substantial breeches

licy from a syndicate of Lloyds' underriters that was partly mutual and coperative. As compared with the existing surance rates, it gave an immediate reuction on policies of between 21 and 23 er cent. There was no average clause, no ompulsory arbitration, and no canceling ause. Livestock was covered while grazg on the farm, when in the fold yards, id while in transit to market. There was so a bonus scheme on profits—15 per cent n $1,500 policies, 20 per cent on $3,000 olicies, 25 per cent on $5,000 policies, and 0 per cent on $10,000 policies. Fire and orkmen's compensation were included in e policy.

Where, probably, the farmer finds the nion most beneficial to him is in the matr of petty persecutions. Loss of milk in ansit, for instance, often was a very seris affair for the non-union farmer. The nion has brought about a vast improvent for its members in matters of this sort.

O-DAY the organizers of the coöpera. tive movement and the farmers' union e telling the farmers that they must gird their loins afresh, as there is still big ork to be done before their position under odern industrial conditions is secure. They e being told that in five years' time the untry's food problem will become a seris one, unless organization is still further veloped around the producing and disibuting ends. So responsibility rests avy on the shoulder of the British farmer -day.

But John is willing to shoulder the sponsibility of the country's food probm, provided he can keep his end up with e multiple-shop gang. And, thanks to ganization, he is managing to do this ite nicely now. As for the multiple-shop ople, they are legion. To mention only a w of the leading concerns, there is the aypole Dairy Company, Lipton's, the ome and Colonial, the International, insbury's, Pearks', the Coöperative, orlds Stores, and Planner's. All these big mbinations buy their dairy and agricular produce in great bulk from every rner of the earth. Their shops, in frenzied mpetition each with the other, are anted almost side by side in every ham-, village, and town of the country.

This is the sort of freeze-out game the rmer has been up against so long, and hile he endeavored to operate on his own found that these huge combinations of pital and bulked produce whisked him to the corner every time. But as soon as lined up in one solid organization he was le to take his own share in the merry me, and often huff his opponents when ey overlooked a point.

Why the Legion Grows

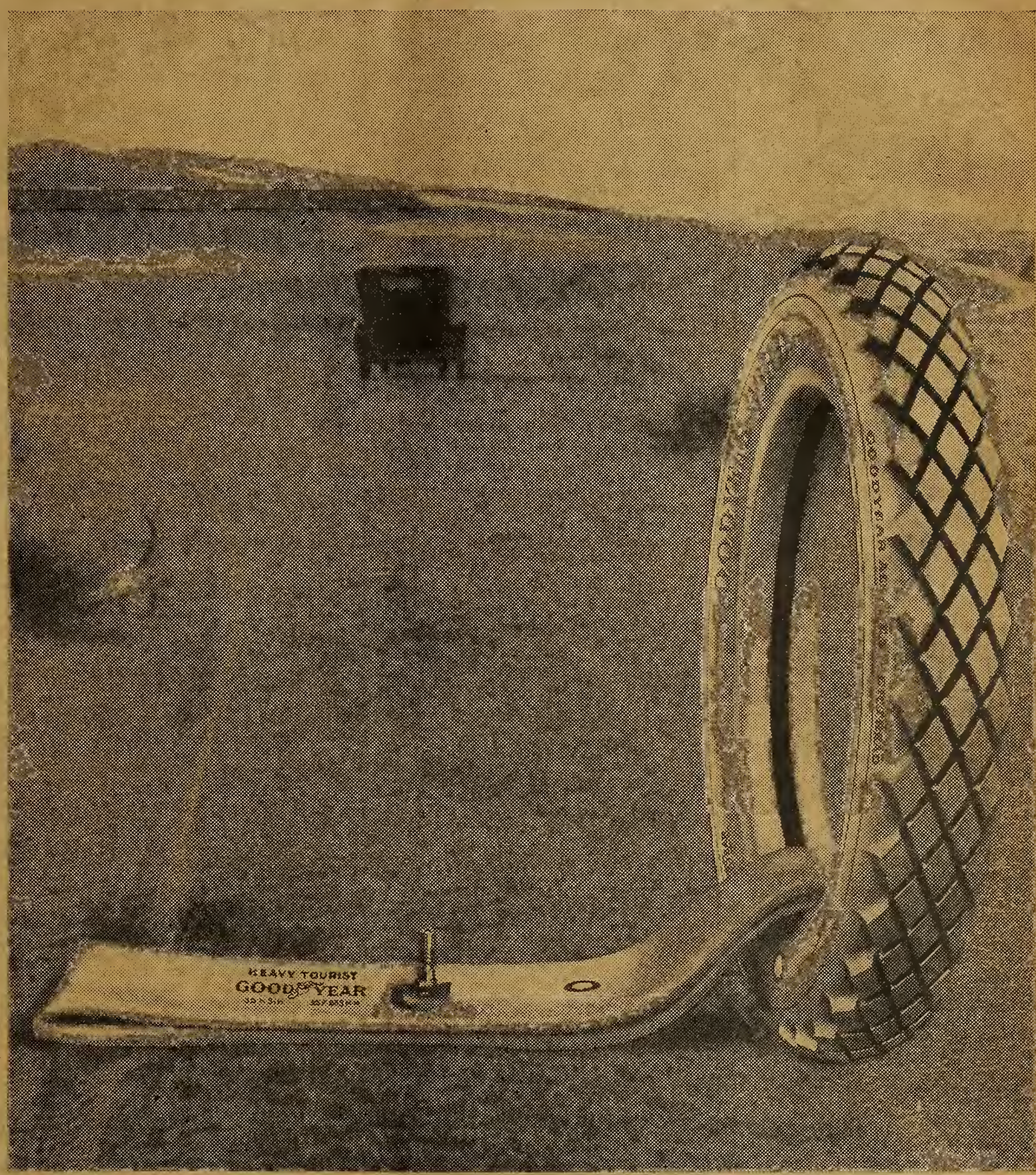
IT IS not unusual to hear severe criticism of the American Legion, its officers, and its purposes. Probably, in certain cases, there has been just cause for criticism. To make mistakes is a universal man quality. It therefore is only to be pected that an organization as young, d at the same time as powerful, as the merican Legion should make its share of unders.

According to the latest available figures, e Legion has obtained, through its service vision at national headquarters, more an $1,250,000 in claims due to ex-service en. National Legion headquarters hanes only the most difficult cases. It is timated that claims aggregating $7,000,-0 have been settled by officers of the rious state departments of the Legion. And judging by the way the membership the Legion continues to grow it must be ing a need in the lives of veterans of the reat War. The number of posts has ssed the 10,000 mark, and is still growing.

I have been able to help many readers of ARM AND FIRESIDE who have had some ar claim, by putting them in touch with e right authority through the Service Dision of the American Legion.

If you have a claim, or if there are any estions you want to ask about matters rtaining to your war-risk insurance, onus, Victory medal, or compensation, rite me a letter and I will try to help you. is very important that you give full deils about your case, such as army serial umber, organization, dates of enlistment nd discharge, etc. Your letter will be nswered direct. Enclose stamped selfddressed envelope, and address Andrew Wing, American Legion Column, FARM ND FIRESIDE, 381 Fourth Avenue, New ork City.

GOODYEAR



Copyright 1921, by The Goodyear Tire & Rubber Co.

GOODYEAR Tires have a unique reputation for wear; you know that. Their great popularity rests solidly upon demonstrated economy. This is more conspicuously true today than ever before. For Goodyear Tires are better today than ever before. They are made larger, now; they are stronger. They are heavier in construction, and more durable. Their treads are thicker; throughout, they contain more material. You have only to compare them with others to see their manifest superiority. If you would be sure of economical equipment for your car—buy Goodyear Tires. More people ride on them than on any other kind.

"The Little Nurse for Little Ills"

Stings of Insects

PAINFUL STINGS and insect bites are quickly relieved, and infection prevented by covering the spot with soothing

A HEALING CREAM
Mentholatum
Always made under this signature

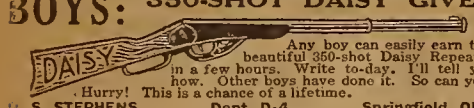
The hot pain is cooled, and the healing, antiseptic action of Mentholatum takes down the swelling and quickly makes all well.

Mentholatum gently heals sunburn, cuts, bruises, burns, etc., and relieves tired feet.

Mentholatum is sold everywhere—tubes, 25c; jars, 25c, 50c, $1.

The Mentholatum Co.
Buffalo, N. Y.
Wichita, Kans. Bridgeburg, Ont.

BOYS: 350-SHOT DAISY GIVEN



Any boy can easily earn this beautiful 350-shot Daisy Repeater in a few hours. Write to-day. I'll tell you how. Other boys have done it. So can you. Hurry! This is a chance of a lifetime.

W. S. STEPHENS Dept. D-4 Springfield, Ohio

$365.75 ONE DAY!

Ira Shook of Flint Did That Amount of Business in One Day

Making and Selling Popcorn Crispettes with this machine. Profits $269.00. Mullen of East Liberty bought two outfits recently, and is ready for third. Iwata, Calif., purchased outfit Feb., 1920. Since, has bought 10 more—his profits enormous. J. R. Bert, Ala., wrote: "Only thing I ever bought equaled advertisement." J. M. Pattilo, Ocala, wrote: "Enclosed find money order to pay all my notes. Getting along fine. Crispette business all you claim and then some." John W. Culp, So. Carolina, writes: "Everything going lovely. The business section of this town covers two blocks. Crispette wrappers lying everywhere. It's a good old world after all!" Kellog $700 ahead end of second week. Mexiner, Baltimore, 250 in one day. Perrin, 380 in one day. Baker, 3,000 packages, one day.

WE START YOU IN BUSINESS

Little capital, no experience. Furnish secret formula

Build a Business of Your Own

The demand for Crispettes is enormous. A delicious food confection made without sugar. Write me. Get facts about an honorable business, which will make you independent. You can start right in your own town. Business will grow. You won't be scrambling and crowding for a job. You will have made your own place.

Profits $1000 a Month Easily Possible

Send post card for illustrated book of facts. Contains enthusiastic letters from others—shows their places of business, tells how to start, when to start, and all other information needed. It's free. Write now.

LONG EAKINS COMPANY
818 High Street Springfield, Ohio

Joada or Jail

[CONTINUED FROM PAGE 12]

Mr. Farnsworth said severely. "Now you better get on a car and head for home. This is no evening for you to be loose on the street."

"Yas, suh," agreed Almanzar. "Yas, suh. But—Mista' Fahnswo'th, please, suh! Kain't I go get my girl some supper—at er cullud restaurant—an' tek her home?"

"Your girl? Where would you find her?"

"She done followed the policeman," Almanzar explained. "That's her down street waitin' to see you-all get me tuhned loose. She knew you-all would do it."

"Go get her something to eat and take her home, then." He faced back. "And you listen here, Almanzar! To-morrow you mind your p's and q's. I'm not going to get you out of the hands of the police again for two months. Get that? I mean it. No more trouble for you for two months, or I'll let the police keep you. Now run along!"

"She's a pretty girl," Mrs. Farnsworth said, after they had passed the doorway in which Joada waited. "I don't blame Almanzar. Just think of that disreputable Chinaman—just because she was colored and he supposed a darky wouldn't dare resent it! You're not going to punish him, are you, Fred? He will get his dollar for Juneteenth, won't he?"

"If it weren't for the everlasting principle of the thing I'd give him two," her husband declared.

THE next day Almanzar was in the house fully a half-hour earlier than on ordinary mornings, and the breakfast was unusually good even for a house that always had good breakfasts. Almanzar had ordered his menu so as to make more trips than usual between kitchen and dining-room. He felt a little shaky, after the experience of the night before, about his Juneteenth gift.

However, after breakfast Mr. Farnsworth called: "Oh, Almanzar!"

The servant turned.

"Here's your Juneteenth dollar. I oughtn't to give it to you. Just this time, I will. But don't you get into any more trouble for one long spell. You remember what I told you last night. I won't get you out."

"Yas, suh. No, suh," Almanzar grinned, and disappeared with the dollar.

As soon as he had finished his after-breakfast duties, and arranged the luncheon he had planned for Mrs. Farnsworth, Almanzar arrayed himself in purple and fine linen (no figure of speech, purple being his favorite color), and departed for the day.

Calling at the Livermore home, he escorted Joada to the heart of the city. They waited for a trolley car which seemed to have vacancies in its seats reserved for colored people, and climbed aboard.

Almanzar's mind had been so taken with the business of finding a place to sit that he had not noticed all the colored people on the car; but, as he turned for a moment to face the rear, he was surprised to see the attractive and smiling countenance of Miss Susietta McCoy.

That Miss McCoy should be going to the picnic, or that she should be on this car, was not of itself at all surprising; he had expected to see her somewhere. But it was a cause for wonderment that Miss McCoy was with, and obviously being escorted by, a tall, very black youth with a shaven head. According to all expectations, she should have been accompanied by the yellow school teacher from up North Texas. Almanzar, while he was bowing to her in his best manner, adjusted his mind to the fact that the yellow school teacher had gone out of Miss McCoy's life almost as soon as he had entered it.

"WHO you bowin' to, 'Manzar?" Joada asked as he sat down.

"Miss McCoy," he replied. "She's got new gen'leman; stranger ter me."

"Wheah's Puffessuh Smith?" Joada wondered, after she had craned her neck and nodded to Susietta. "Professor" Smith—Christian name Hector—was the yellow school teacher.

"I should worry!" Almanzar responded airily. "'At Mista' Smith, I guess, looks lak maybe he got los' in the shuffle. Awful pernicketty man, 'at Mista' Smith."

"He's nice-lookin'," Joada said.

"Maybe, an' maybe not," Almanzar argued. "Kind er looks 'at way because he's got spectacles. Spectacles an' glasses," he added with unconscious venom.

"Ol' big-word school teacher!" he added, a moment later. "Always talkin' lak dictionary."

Almanzar, right here, was making a tactical mistake. He was unconsciously setting in motion a spirit of contrariness that was one of Joada's besetting sins. Joada did not say anything more on the subject at this moment, however; nor did he. All might have been well had they not chanced to fall in with Mr. Hector Smith under circumstances which gave that urbane gentleman a remarkable opportunity.

It was after dinner, and Almanzar had

This lusty kid is one of the 7,000 milk goats kept on the Wideman Goat Ranch, Pascadarás, San Mateo County, California. The business of this ranch, which is the largest in the world, is to supply condensed goat milk to infants and invalids all over the country. The man doing the feeding was dying of malnutrition. Goat milk saved him. The kids are weaned soon after birth, and are fed cow's milk through nipples from troughs

bought the ticket that would entitle them to dance all the afternoon and evening in the big pavilion. He took her to walk—dancing not yet having started—along the lane formed by show and eating tents, cane boards, and rifle galleries, which came to an end beside a most gorgeous merry-go-round, where colored children from five years old to sixty were screaming their delight and striving to capture the brass rings that meant another ride free.

Simple calculations assured Almanzar he would have exactly sufficient funds remaining for supper, ice cream, a pair of sandwiches, and car fare home, if he and Joada rode twice on the flying horses. It would mean no soda, but at the moment he rather thought he could get by without having soda. He bought two tickets.

JOADA climbed upon the back of a pinkish giraffe; and Almanzar, just behind her, swung his long legs over the back of a white horse with bluish blotches and a very red open mouth. They rode. When the machine came to a stop, and the organ accompaniment of an eight-year-old popular air wheezily broke off in the middle of a bar, Almanzar produced another dime and magnificently commanded Joada to remain where she was.

A girl on the bucking tiger just ahead of Joada's giraffe reluctantly descended, and a tall young man, very light of face and with a straight Caucasian nose decked with glasses, slipped into her place. As the music and the zoölogical procession started again, he looked backward, and lifted his hat very gracefully.

"Good evenin', Miss Livermore!" he said in precise accents. "This is indeed a great pleasure!"

Peering through his glasses to a point beyond her, he discovered Almanzar, and nodded with gentle patronage. Then he swung around, and applied his energies to picking rings from the metal arm down which they slid to within reach of the riders. On the third circuit he turned, beaming, toward Joada, and held up the brass ring triumphantly.

"I secured it!" he cried.

"Secured it!" echoed Almanzar disgustedly, for nobody's benefit in particular, and began to have an unpleasant afternoon.

As the machine came to a stop, the scho teacher, bowing gallantly, presented h brass ring to Joada, who giggled h thanks. Mr. Smith purchased anothe ticket. Almanzar had the choice of himse spending another nickel or leaving Joad to ride alone—with the professor. He e pended the five cents, but had no time t enjoy that ride, because he was too bu with mathematics. The outcome of h figuring was that he was safe in carryin out his prearranged program if Joada cho five-cent sandwiches or ice-cream cone Ten-cent sandwiches and whole plates ice cream had become impossible.

MR. SMITH joined them pleasantly they descended after that ride, an marched along on the other side of Joad

Sauntering toward the dancing pavilio they came to the soda stand.

"Wouldn't you like a little drink soda?" asked the professor, making his i vitation courteously inclusive.

Almanzar started to say he wasn thirsty, but Joada had already accepte with enthusiasm.

"Ice-cream soda," the teacher suggested as a perspiring colored boy leaned forwar to take their order. "Three ice-crea sodas—or wouldn't you regard a nut su dae as desirable?'

Joada regarded a nut sundae as very d sirable. Almanzar trailed along. Mr. Smit produced a pocketbook, and paid for th refreshments out of a five-dollar bill.

Almanzar realized, as his heart sank this display, that in the past ten minutes h had seen nothing of Miss Livermore' smiling countenance.

"If you'll excuse us now," he said to M Smith, in an attempt to take charge of th conversation, as they finished the soda, 'I heah the dancin' is beginnin'. Maybe w see you lateh, Puffessuh."

"That's so; so it is beginning," Mr Smith said. "I hadn't heard it. I thi perhaps I shall dance a little myself."

Joada danced with Almanzar first, aft they reached the pavilion, but the dan was not a cheerful one. Neither of the seemed to think of anything to say. A they passed Mr. Smith, galloping alon with a puffy matron whose husband w supposed to have great influence with th waiter vote, Almanzar sensed the look sympathy and understanding that pass from Joada to the teacher's blinking eye Almanzar hated those eyes—behind foolis old glasses.

Just as this dance came to an end, ther was a commotion near the entrance, an the crowd on the floor was appreciabl augmented. More than a dozen young me entered in a great hurry. They bought the tickets on the run, passed the ticket tak hastily, and seemed bent on scatterin themselves instantly into every part of th pavilion.

Whispers ran like wild-fire about th place: "Wondeh what 'ey done." "'Pear lak somebody's in awful hurry to get hid i crowd." "You know 'at gang, doesn' you? At's 'at bad gang from oveh bac of th' railroad yahds."

Another dance started, but throughou its progress comment continued to buzz Almanzar was sitting out this one wit Joada, and both of them had side-steppe their troubles in the curiosity that co sumed them. When Mr. Smith hurri over toward them, Almanzar forgot he w angry with him.

"What you mek of it, Puffessuh?" h asked eagerly. "What you reckon 'e done?"

ANSWER, in the form of flying gossi which comes from nobody ever know where in a colored assemblage, flashe promptly on the heels of these question A passing acquaintance whispered the new to Almanzar. Others were repeating it.

"Had a awful fight down at crap game. "Poleeceman shot one of 'em, an' 'ey too his gun away an' natchully cahved him al to pieces." "Cahved a poleeceman! Ho come 'ey got away?" "No; 'ey cahved man 'at hollered foh a poleeceman."

And as rumor flitted, and the entir company quivered excitedly, with eve the orchestra becoming affected and shaky a sudden uproar came from the front of th pavilion. Colored people were shouting imploring, protesting their entire innocenc of wrong-doing. Over these a white voice called with authority:

"All you niggers stand right where yo are! Don't one of you try to get away!"

One word the entire company shouted

chattered, or whispered, as each of its members was affected. The word was "Poleece!"

That the officers merely wanted to hold them all until the fugitive lawbreakers could be singled out and arrested, did not occur to one man out of a hundred. They milled in a panic.

One sentence out of the recent past flew into Almanzar's head, excluding everything else: "No more trouble for you for two months, or I'll let the police keep you." Looking hysterically this way and that, he observed that he was beside a railing, with a drop of a dozen feet to a hollow. There were no uniforms in the hollow; if the police were surrounding the pavilion, they had not yet reached this place.

JOADA sensed his intention. Almanzar was much bigger and more protective than Mr. Smith. She seized his arm.

"You stay with me, 'Manzar!" she demanded. "Don' do it! Don' go leave me for the poleece. 'Manzar!"

Mr. Smith, recovering from his panic perhaps the first of all those present, suddenly grasped the idea that the peaceable dancers were in no danger whatever, whereupon he stepped to Joada's side and answered her heroically:

"Have no fear, Miss Livermore!" he exclaimed. "Have no fear," he repeated. "I shall remain with you—irrevocably."

Almanzar already had shaken off Joada's detaining hand and taken one step toward the railing. He paused just long enough to place the palm of his hand in Mr. Smith's face, and push. Mr. Smith sat down violently. The glasses tinkled musically as they shattered to bits on the floor. Almanzar muttered, to himself rather than to Mr. Smith: "Ol' big-word school teacher!" He vaulted the rail.

Nearly a hundred yards away it occurred to him he had better stop running. Any policeman, even if he knew nothing about the affair at the pavilion, would be likely to stop him on general principles. He forced himself into a walk.

He found himself saying:

"Kain't do it. Jes' natchully kain't. Kain't get arrested twice in two days."

The Farnsworths had dined on the club roof rather unsatisfactorily. Not more than half the waiters were on duty, and those present were overcome with thoughts of the picnic and served their tables absentmindedly. The only comfort lay in the fact that the roof was crowded with diners-out in the same fix.

They returned home immediately after dinner, and sat on the gallery. Suddenly to their ears was borne the sound of whistling, and the slamming of their back gate. This program Almanzar was obliged to carry out nights in order that he might not be accidentally shot as a burglar.

"Little Sunshine is with us," commented Mr. Farnsworth.

"That's odd!" his wife said. "What do you suppose happened? He said he didn't expect to get in before midnight. Last year it was nearly two."

ALMOST immediately Almanzar appeared around the house, and his voice bore its most conciliatory intonation.

"Oh, Miz Fahnswo'th!" he called. "Don' you think maybe it be er good idea for I wateh the palm heah on the front lawn? I notice, this mawnin', they awful dusty an' dry."

"All right. What brought you home so early?"

"Feet huht," he replied, and disappeared toward the back yard.

"That boy," Mr. Farnsworth exclaimed with conviction, "is about to establish a perfect alibi."

Almanzar, having changed his clothes speedily, came in sight again, dragging the garden hose. He attached it to the tap, and prepared to water the palms.

"What kind of a time did you have at the picnic?" Mrs. Farnsworth asked. "And what kind of a crowd was it this year?"

"Not ve'y good time, Miz Fahnswo'th," he replied. "Awful big crowd, an' kinda rough. Yes, mam; pretty tough crowd, I'd say. I di'n' like 'at er-tall, Miz Fahnswo'th. Ef' 'at picnic befo' suppeh, an' I been down-town ev' since. No, mam, I nev' did go back."

The day had not been all dark; Almanzar especially remembered how pleasantly Mr. Smith's glasses had tinkled as they broke. He had lost a girl, to be sure, but girls . . .

His voice raised a little as he sang:

"Whe'eveh dooty's bannehs wave,
Stan' eveh fuhm; be eveh brave!
Feah not the loss of frien's of yoah,
For Heaven will sen' you moah an' moah."

[THE END]

DEVOE

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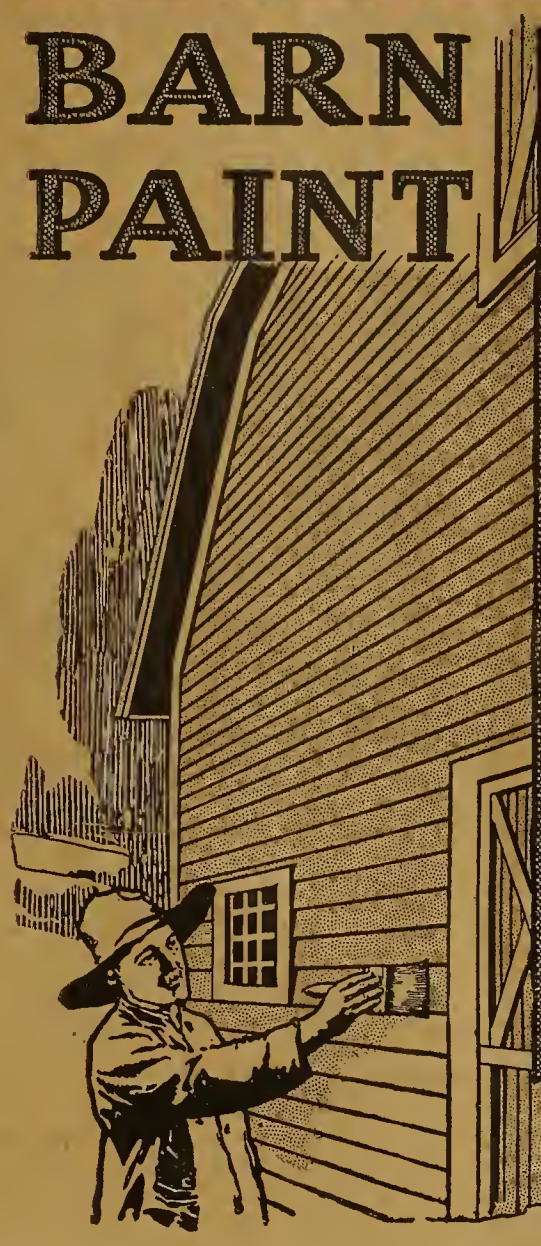

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"Single G"

[CONTINUED FROM PAGE 5]

horses have beaten him or he has beaten them."

I expressed some surprise at this point, and asked whether Mr. Barefoot could name any horses that fought or sulked on being asked to race against animals that had defeated them. He replied by naming one very well-known horse of the present day which, he said, paces wonderful races in other company, but sulks and refuses to try against Single G, who has beaten him several times.

"I HAVE also heard horsemen tell how Joe Patchen," he said, "on taking the track against Robert J., which beat him sometimes, would try to get free of his driver, to attack Robert J. with teeth and hoofs."

Single G has been beaten by other horses. He is not unbeatable, and Mr. Barefoot makes no pretense that he is. On the other hand, however, he takes great pride in the fact that Single G has beaten every horse that ever defeated him. In fact, Single G has beaten every horse that has verdicts over him, more times than the horse has defeated him, with one exception. Napoleon Direct won more times from Single G, than Single G won from Napoleon Direct. "But Napoleon was retired from racing before Single G came on to be his best," Mr. Barefoot explains. "We didn't get a crack at him when Single G had all his speed."

Here is Single G as a weanling. His dam was Little Gyp, a driving horse Will Barefoot bought from a farmer along a country road, with no idea that he was getting real racing blood. Note the white G in the colt's forehead

After attracting some attention as a three-year-old in 1913, and setting a record for four-year-olds in 1914, Single G became nationally famous through winning the great Chamber of Commerce Stake at Detroit, on the Grand Circuit, in 1915. That was his first really great performance. His last was in Atlanta last fall, when, racing against a fast pacer named Sanardo, he paced three heats in 1:59, 2:00 and 2:00¾, the fastest three consecutive heats ever won by a pacing horse. With Miss Harris M., a noted pacing mare, he holds the record for the fastest three heats ever paced in a race. At Toledo, in 1918, he lost the first heat to Miss Harris M. in 1:58¼, and then came on to win the second and third in 1:59½ and 1:59¾. A summary of his racing career reveals some interesting facts:

Year	*Record*	*1st*	*2d*	*3d*	*4th*	*Won*
1913	2:12¼	4	4	0	0	$2,375
1914	2:07¼	11	3	0	1	5,630
1915	2:02¾	7	2	2	1	10,245
1916	2:00	5	7	2	0	6,505
1917	2:00¾	7	2	1	2	6,795
1918	1:59½	10	3	1	0	9,198.75
1919	1:59¾	5	5	1	0	6,181.25
1920	1:59	10	1	0	1	8,735
	Totals	59	27	7	5	$55,665.00

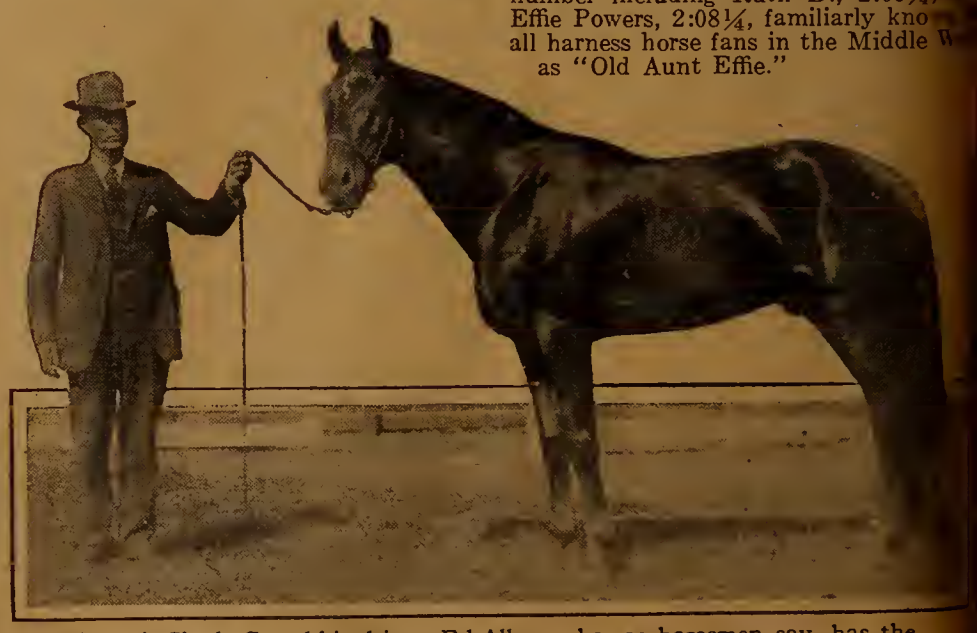
Horsemen say that the remarkable t about Single G is not so much his sp which other horses have equaled, and surpassed, but the fact that he comes year after year for more hard races. the exception of the two diseases bothered him as a colt, Single G has al been sound. Even his legs, which sho strain of racing before any other part horse's body, have continued sound.

"All his fast miles have been in race we have never babied him along exhibition miles," said Mr. Barefoot. has made his records in the compan other horses, in races in which he h pace through of all sizes to g the front. Work and out, and ar other horses, be ing well, and showing speed test of a race h Single G has doing his job h good workman since he first to the races."

Mr. Barefoot' for the great h is manifest in m ways. After S G won the big Ch ber of Comm stake at Detro 1915, a weal horseman offe $15,000 for the h Barefoot refu and when aske set a price on S G decided he di care to sell at all. He goes over to In apolis every now and then, fall, winter spring, to see the horse, and in su makes pilgrimages all over the U States to watch him race.

Single G is known to horse love fourteen States, including Connect New York, Pennsylvania, Georgia, O West Virginia, Kentucky, Indiana, Illi Michigan, Wisconsin, Iowa, Nebraska, Minnesota, in all of which he has races. The poultry business in ea Indiana has to worry along without Barefoot when Single G is at the trac face a starter. He has journeyed thousa of miles to watch the son of his old m Little Gyp, match speed with other horses.

LITTLE GYP, by the way, died not ago, at the ripe old equine age of th one. Mr. Barefoot says it was like losing of the family. She had borne and r quite a family of her own, having been to Anderson Wilkes six times. Two of colts died, but one other besides Sing made a great record on the track. She Grace D., 2:06¼, at one time three-y old champion pacing filly. She set a re for half-mile tracks which later was placed by William, another Indiana p in recent years a great rival of her bro Single G. Half-sisters of Single G also shown themselves fine animals, number including Ruth D., 2:06¼, Effie Powers, 2:08¼, familiarly kno all harness horse fans in the Middle W as "Old Aunt Effie."



Here is Single G and his driver, Ed Allen, who, as horsemen say, has the "key" to this famous horse. Mr. Barefoot, Single G's owner, is extremely modest, and was not at all interested in having his own picture printed with this story. He is one of the most successful poultryman in the United States, and, as you might suppose, thinks the world and all of Single G. He wouldn't sell him at any price, and doesn't go in for big racing money. He loves horseflesh for its own sake, and makes his living out of chickens

Horsemen interested in pedigrees and blood lines used to turn up their noses at Single G, for they say his breeding is only 50 per cent orthodox. His sire, Anderson Wilkes, by Onward, son of George Wilkes, rates high, but his dam, Little Gyp, might not pass muster in the register of aristocracy. Mr. Barefoot's homely old mare was a daughter of a roan pacing stallion called Shoofly Gyp, which traced back to an old-fashioned Indiana pacer named Tom Crowder, famous in the days of old Blue Bull and other Hoosier plowhorses that sported down the pikes on Sundays. History is not overloaded with facts about Tom Crowder, but it is of record that many fast pacers from Indiana trace back to him.

Single G is a stallion, but he has never been placed in service. Mr. Barefoot is inclined to believe that he would be very useful in the stud, because his extreme speed, good physique, and splendid disposition should "breed on."

"I would rather he'd stay on the track as long as he can, and continue to improve. He has already passed the point where most horses are retired. Nowadays they are taken off the track after two or three third racing years, but Single G is going to keep on racing until he goes back. Then I'll think of retiring him. If racing is intended to improve the breed of horses, the thing to do is to make the horse as good as he can be before he is withdrawn from the track."

THE horse is a medium-sized, clean-legged bay with black mane and tail, and three black stockings. There is no hint of the roan color he might have inherited from his dam. At the start of spring training for the free-for-alls on the Grand Circuit, Single G weighed 980 pounds. He is driven this year by Ed Allen, who, as the horsemen say, has the key to the animal. Single G has raced for many great reinsmen, including Ed "Pop" Geers, the late Curt Gosnell, and others, but Allen has handled him in his fastest races. His best single feat for Allen was the victory over Bonardo at Atlanta last year, but Allen goes to tell of a series of races in 1918.

"We win with him at Springfield, Illinois, on a Friday of last year, in 2:00½ and 2:01¼, over a mile track," Allen says. "Then we shipped to Des Moines, and win on Monday in 2:06, 2:03¾, and 2:01, over a half-mile track. The 2:01 is a world's record for a half-mile track. Then the next Wednesday, a week, we were back in Indianapolis for a match race with William, and we win with the best time around, 2:01. I think no other pacer or trotter ever went miles like those in less than two weeks."

The horsemen, watching for news of his performances in his ninth season of racing, say that Single G is most noteworthy for the long time over which he has carried his speed and sound physique. To the layman, however, probably the most interesting fact in connection with his career is his humble origin. Mr. Barefoot does not maintain a racing establishment, and makes no pretense of being a great horseman or breeder of horses. He owns the world's greatest harness horse simply because he happened to own and be fond of the old pacing mare that he bought on a country road. Yet the owners of and trainers for the finest racing establishments in America take off their hats to him and his horse with the white G on his forehead.

Does $300 Land Pay?

AN INTERESTING side light is thrown on last year's land boom in certain Corn Belt States in a report made by the Department of Agriculture about conditions in Iowa. A recent investigation made by that State by the Department in coöperation with the Iowa State College of Agriculture shows that, while buyers of high-priced Iowa land must pay an average of six per cent on the money borrowed to buy farms, these farms can only be expected to yield an average of three per cent on the capital invested.

It was found that the average value of Iowa farm lands increased $121 per acre in the five years from 1915 to 1920, and that most of this increase occurred between March, 1919, and March, 1920. Contrary to popular belief, most of this land was bought and sold by farmers, and not by real-estate speculators. Many of the purchasers of this top-priced land will make it pay by intensive farming. Others, undoubtedly, will fail just as war-inflated enterprises are failing in all lines of business. It seems to be one of the unfortunate but inevitable results of the war. W. R. S.

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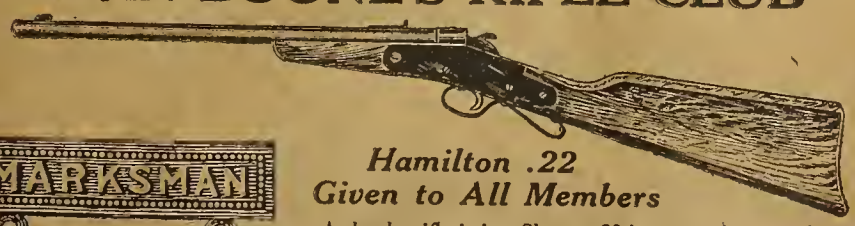

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David Blair, National Sec'y, Dept. R-36, Springfield, Ohio

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Talking about rolling your own cigarettes, you've got a handful-of-happiness coming your direction when you pal it with Prince Albert and the makin's papers! For P. A. is not only delightful to your taste and pleasing in its refreshing aroma, but our exclusive patented process frees it from bite and parch! You smoke P. A. with the bars down!

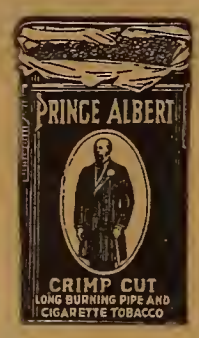
And, for a fact, rolling up Prince Albert is mighty easy! P. A. is crimp cut and stays put and you whisk it into shape before you can count three! And, the next instant you're puffing away to beat the band!

Prince Albert is so good that it has led four men to smoke jimmy pipes where one was smoked before! It's the greatest old buddy-smoke that ever found its way into a pipe or cigarette! And you'll o. k. that say so!

Prince Albert is sold in toppy red bags, tidy red tins, handsome pound and half pound tin humidors and in the pound crystal glass humidor with sponge moistener top.

PRINCE ALBERT

the national joy smoke



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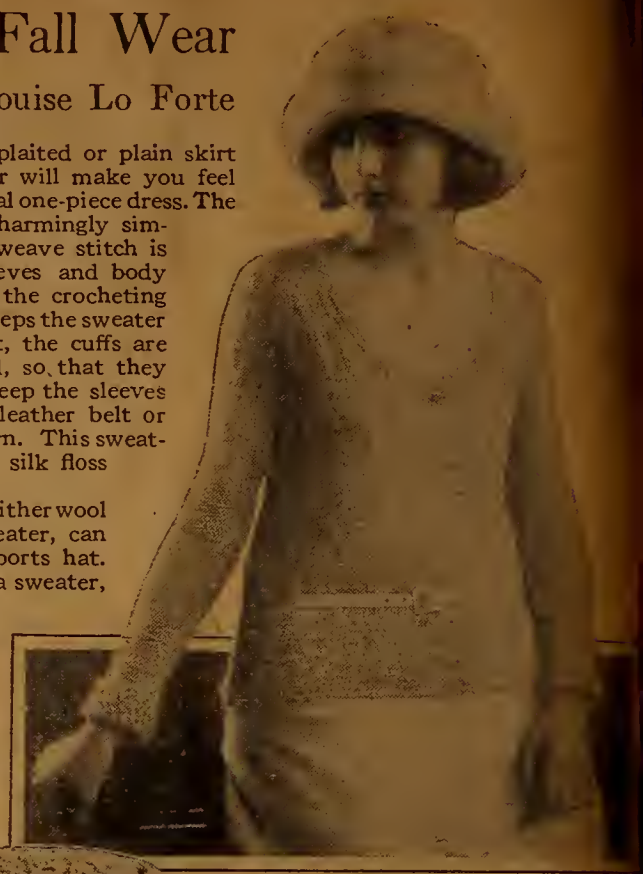
Here's a Sweater and Hatband for Early Fall Wear

By Louise Lo Forte



WHEN worn with a plaited or plain skirt this knitted sweater will make you feel that you have an additional one-piece dress. The lines of the sweater are charmingly simple, and the soft basket-weave stitch is distinctly new. The sleeves and body are all made in one, and the crocheting at the neck and bottom keeps the sweater from stretching. In fact, the cuffs are crochet instead of knitted, so that they fit the wrist snugly and keep the sleeves from bagging. Either a leather belt or a knitted sash may be worn. This sweater was made of wool, but silk floss might also be used.

This hatband, made of either wool or silk to match your sweater, can be worn on almost any sports hat. Even if you do not have a sweater, the band will give your old hat a new look.

COMPLETE directions for maki the knitted sweater and the croch hatband, and full instructions in kni ting and crocheting for the beginn are given in leaflet FC-140. To obt these directions send eight cents stamps to the Fancy-Work Edit Farm and Fireside, Springfield, Oh

"Killing Weeds" and Other Bulletins for August

AUGUST is an ideal time to make war on weeds. At this time they are maturing, many of them are blooming. Soon they will begin to scatter seed. But if they are cut or pulled out *now*, and exposed to the hot August sun, they will die, and in a few years you can eliminate many of the worst ones entirely. Of course it takes persistent effort really to control them, but it pays, as the following shows:

The U. S. Department of Agriculture experts estimate that *30 per cent of all the time farmers spend cultivating their crops is spent fighting weeds.* These specialists have been working for years on ways to help you keep weeds under control. There are a number of bulletins which contain the valuable information they have dug out. These can be obtained free, excepting those marked otherwise, by writing to your congressman, or to the Division of Publications U. S. Department of Agriculture, Washington, D. C. It is better to write your congressman, because congressmen get a larger supply for distribution than do the other offices. The list of weed bulletins follows:

Farmers' Bulletins (Give number in ordering): 610, Wild Onion; 660, Weeds in General; 833, Wild Oats in Hard Spring-Wheat Area; 945, Bermuda Grass; 1161, Dodder; 1166, Poison Ivy and Poison Sumac; 1002, Canada Thistle.

Department Circulars: 108, Chicory; 130, Hawkweeds or Paint Brushes. (5 cents a copy.)

Department Bulletins: 511, Farm Practice in the Cultivation of Cotton. (10 cents.)

In addition, the following leaflets on special weeds may be obtained by writing direct to Forage Crop Investigations, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.:

Chemical Weed Killers: Eradication of Nut Grass; Wild Carrot; Crab Grass; Killing Dandelions in Lawns; Sheep Sorrel; Chickweed in Lawns; Eradication of Quack Grass; Wild Morning Glory, or Bind Weed; Honeysuckle as a Weed; Perennial Sow Thistle.

Here are some good general bulletins for August:

Monthly List of Publications. This circular, issued monthly, describes the new publications of the Department of Ag ture. It will be sent regularly to all ask for it.

Better Seed Corn. Farmers' Bulletin You can more quickly get better yields by using good seed corn than i other way. It will soon be time to selecting your seed for another year. bulletin gives helpful pointers on sel and storing seed corn.

Fall-Sown Oats. Farmers' Bulletin If you live in a Southern or Southe State, you can profitably fit fall-sow into your rotation. Before you try it, ever, it might pay you to read this bu

Hairy-Vetch Seed Production i United States. Bulletin 876. Describ only methods of seed production, bu gives many useful suggestions abou use of this valuable legume.

Handling and Transportation of C loupes. Farmers' Bulletin 1145. Ten cent of the cantaloupes produced i Western States reach the consum green that they are practically wort Large growers and shipping associa will find this bulletin suggestive.

Flag Smut of Wheat, and Its C Farmers' Bulletin 1213. This inju wheat disease, which causes consid loss in Australia and other countrie introduced into Illinois in 1919. If want to learn to know it and how to co it, read this bulletin.

Angoumois Grain Moth. Farmers' tin 1156. This insect, which is second "black" weevil in its injury to grai be eradicated by proper cultivation, a fumigation of grain in storage. bulletin tells how.

Cotton Diseases and Their C Farmers' Bulletin 1187. An inval treatise for all cotton growers.

Diseases of Sheep. Farmers' B 1155. Diseases of sheep not caused parasites are considered, and treat prescribed. For diseases caused by sites ask for other bulletins.

House-Cleaning Made Easier. Far Bulletin 1180. While you probably w agree with everything in this bulletin, t are a lot of helpful suggestions that might be able to use. Miss Elizabeth F our household editor, says that it is a thing for every farm woman to read.

The circus proper began, of course, with the parade

The Circus

By Emily Rose Burt

S a perfect circus! To begin with, e fences of the countryside there big posters—rivaling Barnum and nd Ringling Brothers', for they such beasts as never were on land d bore this proclamation:

e circus is coming,
o show on the green;
e freaks are the straugest
ou ever have seen.

ng pennies and nickels,
nd dollars and dimes,
pay for the cheapest
f jolly good times!

near one member's home had owed for the occasion on a Saternoon. It was roped off in true le. A row of small tents quite and audibly held the side shows. nearly everybody in the neighbor- d some people from the nearby d curiosity enough to come, pay nce fee, and so gain the privilege by the ring and a chance to exside shows.

cus proper began, of course, with t parade. There, sure enough, band—all the members playing re instruments; the midgets, the giant, the fat lady, the bearded e purple cow, the jabberwock, the e pretty ladies in a chariot, the ts in cages—in short, a really g assemblage of circus material.

nd was made up of boys wearing alls and high red paper hats—unning color effect.

dgets were the tiny brother and two club members. They were garments cut grown-up fashion. nt, as may be imagined, was a lts. A long duster coat effectually the wooden extension. A weird ld also be gained by putting a he brush end of a broom, dressing nstick properly, and carrying it ir.

The fat lady was a boy unrecognizably stuffed out with pillows covered with the waist and skirt of a very large size. "She" rode, of course, in the parade, sitting in a child's express cart drawn by two lads, apparently tugging for all they were worth, and pushed by a third.

The bearded sisters were two girls who put aside their feminine vanity to the extent of allowing their hair to be brought around each side of the face, held there with spirit gum, and then allowed to dangle in beard fashion.

The purple cow was a mysterious creature with a purple skin, walking on four legs. Two boys composed the strange animal, the first one walking bent over, the second following, and resting his hands on the stooped back of the first. In this position they had been sewed into a purple cambric covering with a tail and horns. The hindmost boy switched the tail, the foremost one "mooed."

The clowns, the familiar plump cops, and blacked-up rascals were also part of the show. The pretty ladies were much bespangled and betulled, and rode on a float made from a lumber wagon and draped with gay materials.

AS FOR the beasts in their cages—they caused a good laugh, for under the label *Wild Australian Dog*, Jimmy Atkin's collie was recognized. The possibilities for a wild beast parade are quite unlimited in the country, where domestic animals are available.

The performance itself was fairly brief, in order to give time for the side shows, which of course were all additional money makers, well advertised by the traditional "barkers."

NOTE: Suggestions for the Circus Side Shows and Fortune Telling Hints for the Princess of the Nile will be sent upon receipt of a stamped self-addressed envelope. Address, Entertainment Editor, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

21 Letters About Your Baby

And How You Can Get Them

EXPECTANT MOTHERS' CIRCLE: Any woman eligible may become a member, ng each month a letter of advice on the care of herself and the preparation for her Several practical little pamphlet circulars showing designs for maternity dresses common-sense layette are some of the helps sent with the letters. No matter at period you enter, everything from the first month will be sent. No mention of the Babies Bureau is made on the envelopes in which the material is mailed. En- self-addressed envelope with *Fifty Cents* in stamps, for postage, *and state what you expect your baby.*

MOTHERS' CLUB: Every mother of young children is eligible. Pamphlets, together nonthly letters of instruction on the care and feeding of babies *under one year of* overing such subjects as colic, constipation, weaning, teething, etc.), will be sent mother who sends *Fifty Cents* in stamps and states the age of her baby. There o leaflets giving diet lists, and other helps for babies from one year of age to three This literature is all included in the Mothers' Club's monthly service, but if the are not desired the additional literature will be sent for *Ten Cents.* A self- sed stamped envelope will bring a prompt reply to every inquiry. Address all es to

BETTER BABIES BUREAU

or to Mrs. Caroline French Benton, Counselor

AND FIRESIDE 381 Fourth Avenue, New York City

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Such things do not improve the smoke any more than premiums or coupons. And remember—you must pay their extra cost or get lowered quality.

If you want the smoothest, mellowest, mildest cigarette you can imagine—and one entirely free from cigaretty aftertaste,

It's Camels for you.

Camel

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mend leaks instantly in all utensils, hot water bags, etc. Insert and tighten. 10c and 25c a package, postpaid. Agents Wanted. Collette Mfg. Co., Box 704, Amsterdam, N.Y.

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Our Letters to Each Other

Wherein we talk things over—so if you've got anything to say, let's have it

"DEAR SIR: Being a constant reader of FARM AND FIRESIDE brings to my notice in a recent issue an article wherein the writer makes a futile, if not desperate attempt to describe the Pennsylvania Dutchman.

"Being a Pennsylvania Dutchman, and a farmer at that, is sufficient reason why I should know that the gentleman has either had an interview with someone who wishes to keep up the old tradition of poking fun at the Dutch, or himself has never been inside a Pennsylvania Dutch home. His keen observer may have told him some truth; but the idea of anything being hammered into our children makes us smile.

"We do not teach them a thing about industry; we simply compel them to earn their own hash, or change boarding places, and they wouldn't change places with any city feller that ever wore a silk hat, or a slouch either, if you please. Then the thrift stuff that we are supposed to be so peevish about—listen: Our children never know that money is made to be spent until they wear long trousers; by that time they usually have enough dough saved out of the money they get from tourists who have no respect for money, to start out in their first pair of long trousers and buy a farm.

"I have never wanted to tell this secret, but here is where the joke comes in that is often passed around about our boys' first appearance in long pants: Wouldn't the weight of money cause anyone's trousers to make an odd appearance?

"Then, once more we wonder—what is schnitz and knep? We know that schnitz are dried apples; but the concoction of which the writer speaks is seldom, if ever, seen in the present day.

"Then again, sixty pies a week! Gosh! Is Brigham Young a Pennsylvania Dutchman? I am sure that in any ordinary Dutch family no less than fifty-five out of the sixty pies would go to waste. And, while you are speaking of pies, why don't you mention good pies? Such as mince, whortleberry, egg-custard, and cream pies?

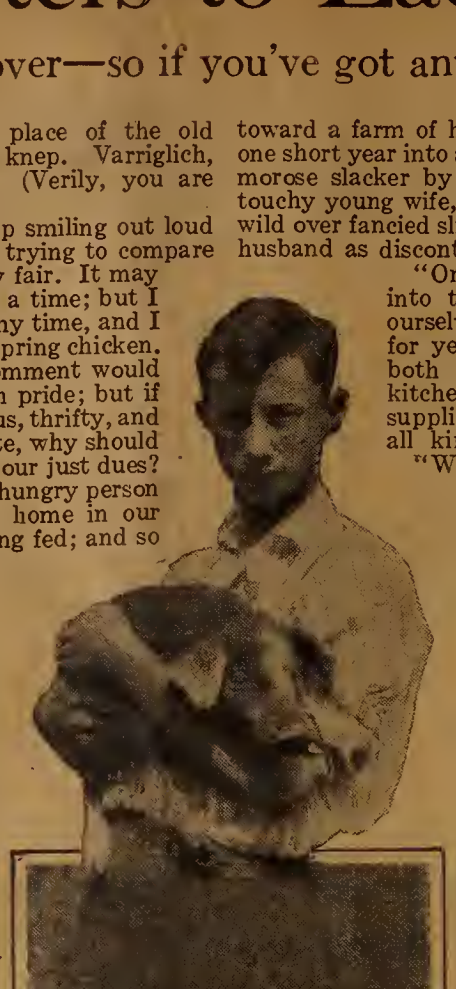
"There are many other foods that we might mention, besides the garden vegetables—roastin' ears, fresh pork, and beef and a thousand other things that for many years have taken the place of the old fashioned schnitz and knep. Varriglich, do bischt letz baricht. (Verily, you are misinformed.)

"Oh, boy! I can't help smiling out loud when I imagine anyone trying to compare our funerals to a county fair. It may have been so once upon a time; but I have failed to see it in my time, and I am not by any means a spring chicken. Fifty years ago such comment would have been received with pride; but if we are honest, industrious, thrifty, and fair, as well as up-to-date, why should we not be credited with our just dues?

"I have never seen a hungry person turned away from any home in our community without being fed; and so long as it doesn't become necessary to haul hay for the purpose of feeding the grasshoppers, or to furnish traveling bags for any migratory birds that may wish to cross our valley, we are content. Call and see us some time, we never pull the latchstring in.

"V. J. GROSS, R. F. D., Beaver Springs, Pa."

Thanks, Mr. Gross; I may take you up on that latchstring business one of these days. Please don't forget!



Picture by courtesy of the U. S. Dept. of States Relations

This is Mason Weart of Buchanan County, Iowa, and one of his prize pigs. Mason is one of the most promising members of his local pig club, and specializes in Poland-China porkers

The Farmhand's Wife

"The wife of a farmer's hired man who recently complained of her lot in a letter to FARM and FIRESIDE inspired me to write about some farmhands and their wives I know. As the daughter of a farmer and the wife of a farmer, knowing both sides pretty thoroughly, I should like to say a few things on the subject.

"First, much depends on the wife. I have seen a good hired man advancing steadily toward a farm of his own, transformed in one short year into a grouchy, complaining, morose slacker by the advent of a silly, touchy young wife, whose imagination ran wild over fancied slights until she made her husband as discontented as herself.

"One young woman moved into the house in which we ourselves had lived happily for years. It had a furnace, both kinds of water in the kitchen, was well papered, supplied with fruit trees of all kinds around the place.

"We considered it an ideal home, but when the farmhand's wife took possession it instantly became a 'shack,' to hear her tell it. She told our old neighbors that she feared the floors would fall into the cellar, that the paper was out of date, that the screens were worthless, and a lot of other nonsense.

"Her husband turned from a loyal worker, interested in the stock and all the crops, into a whining, discontented idler, forever talking about hog employers and the oppression of the poor by the rich. We could scarcely see how things had got mixed so quickly.

"As I go over the list of discontented farmhands' wives I know, one is now the poverty-stricken wife of the driver of a ten-cent wagon in town, still discontented and still nagging her husband, who lost heart when driven from the only thing he knew how to do well. One is working in a factory, while her children are running wild as she helps support the family. One is the wife of a tenant still living in the poorest house in the community, and still feeling that everyo looks down on her.

"On the other hand, the wives of oth farmhands, the women who took th places modestly and happily in the chur and social and home life of the commun without imagining that they were co sidered inferior beings, are mostly mistresses of their own farmhouses. T did not go about whining or complain they did not demand impossibilities; they did not nag their husbands into efficiency or drive them from the farm.

"One in particular, a woman who worked for us in the kitchen, and is on our best friends, now owns a house $6,000. If that woman had imagined t people looked down upon her, and driven her husband to giving up his w because she did not have as much as women around her, she would still be at foot of the ladder; but she went from small things of life to the larger ones e and contentedly, and now enjoys a mo home and a good, secure income.

"There are farmhands' wives in cottages without any of the modern veniences that the world will hear f later. There are others in modern ho who are miserable and discontented.

"I say to all young women abou marry hired men on farms, be sure have sense enough and love enough t frain from nagging the young man off farm, before you stand before the min and take the marriage vows. There plenty of young men in town looking wives without spoiling your own life that of some young farm fellow by m ing him and then making trouble.

MRS. C. W. B.

To which I say, "Amen!"

Ed. Howe of Potato Hill Farm, At son, Kansas, is sixty seven years old, still learning. He says:

"I am gradually being convinced t do not know it all. For years I have tended that no man likes his stepchil The other day I met a man who does."

George Martin

In Which Position Would Your Wife Be?

By Bruce Barton

A BUSINESS man told me this story:

"A very pitiful thing happened in my office a couple of days ago," he said.

"Mrs. Horace Parker came to see me. You remember Parker—big two-hundred-pounder; looked as solid as the Bank of England; sales manager for some railway-equipment house.

"Parker died a couple of weeks ago. Pneumonia. Fever in the office; home in a taxi; dead in forty-eight hours.

"Mrs. Parker looked very young, and very attractive in her black gown. It was a distinctive sort of gown, and costly, as all her gowns had always been. I thought perhaps she might have come to consult me about the investment of Parker's estate. He must have left considerable, I assumed: you know how he lived.

"To my astonishment she told me that he had left her hardly anything. There was a little life insurance; they had talked of increasing it, but always he put it off.

"He was good for ten years, at least, he said, and at the rate he was saving money he would have enough so that she would never need to worry. Insurance wasn't a good investment, he argued. The only people who needed to have an insurance company invest their money for them were those who didn't have brains enough to care for their money themselves.

"As Mrs. Parker told me her story, a big tear crept out of the corner of her eye and rolled down her cheek. It was un unpleasant interview for both of us.

"When all the bills are paid she will have a few hundred dollars. So she had come to me for work. And we made a job for her in our filing department: it was the only kind of work she could do."

The man who told me the story stopped at this point and took a couple of deep breaths.

"Driving home that night I came to a crossroads, about a half-mile this side of my house. The street isn't any too well lighted at that point; and as I turned, another car shot around the corner. I gave the wheel a quick jerk, and we slid past each other easily enough. It was one of those *almost* accidents.

"And yet, you know, it sort of set me thinking. I couldn't seem to forget Parker's wife up there in the office. You remember how Parker used to protect her from all the rough spots of life: what pride he took in the fact that she never had to do any real work—

"And to think of how hard she'll have to work now, just to keep herself and her baby alive.

"I carry a good deal of insurance. I used to think it was ample but with the cost of living going up, I don't know.... A man woul hate to pass in his checks with the thought that he was leaving hi wife the way Mrs. Parker was left...."

A day or two after he told me this story:

"Mrs. Jones and her son called on me. She is the widow of an ol friend of mine who went swimming in the lake one afternoon after hot game of tennis, and died in the water from heart disease.

"A man of modest means was Jones, but he took no chances with the future of his family. Mrs. Jones has lived comfortably since h went; her daughter is in a good school, and the boy, having finished his college course, is ready to make a fair start in life.

"And I thought as she talked that I would like to have her pictur and Mrs. Parker's picture to publish side by side. She with her children's lives assured; and Mrs. Parker struggling away at a job for which she was never trained.

"I would lay those pictures in front of every father in the United States and say:

"'The dollar you earn buys much less than it bought four years ago. Has it occurred to you that your insurance dollars, too, ar worth less than they used to be?

"'It didn't occur to Parker in time: it did occur to Jones. Here are the pictures of their wives:

"'In which position would your wife be if something should happen to you?'"

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FARM FIRESIDE

The Nat l Farm Magazine

September 1921
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I Take a Lesson in the Gentle Art of Whittling Down My Debts

By Carl Elmo Freeman

Illustrated by Tony Sarg

NOTE: Mr. Freeman is a cow rancher near Carrizozo, New Mexico. Selling $58 stock at $28 is not characteristic of him as a rancher, but you know how things have been lately. They're looking up some now, but we think there are enough echoes of the recent past in Freeman's story of what happened to him to strike a responsive chord in you. Thank Heaven, he had enough sense of humor to see the funny side of it. If we couldn't see that sometimes, we'd just naturally collapse. EDITOR.

I THINK I told you how I built my fancy rambling mud ranch house myself, with the aid of some Mexican adobe makers, a cement man, a painter, a bricklayer, a plasterer, and a spiritually inclined carpenter. I also mentioned that the house had arched openings, and thick adobe walls laid up in mud, and everything that a self-respecting ranch house ought to have, including the notes at the bank that would soon fall due and must be met by a sale of cows.

Well, they fell, and from the damage resulting they must have fallen from a great height.

Now, I am honest at heart and believe in paying my just debts, especially when they threaten to foreclose. Of course the house was in my wife's name, but she was on the notes with me—so there you are.

"I'd be glad to extend your notes," said the banker. "But, in view of the present stringent condition of the money market, the directors have instructed me to whittle down our loans. Money is tight, and we can expect no further assistance from the federal reserve branch in this district. Cattle paper is not desirable collateral at this time, and we cannot lend support to speculation—etc., which any farmer can fill in almost verbatim from his own experience.

I explained the situation to Bill, and we decided to gather all the yearlings we had not sold in the summer and fill out the shipment with cows. We could gather everything on the home range by catching them when they came in to water.

THERE were only a few old cows in the herd, as we had culled them out in the summer while they were fat, and shipped them when we sold the yearlings. We found we had to cut into the young breeding cows, which stood me $58 per head, and, in order to protect our coming calf crop, selected for shipment only such cows as did not present perceptible curves of approaching maternity.

When we had worked the stuff watering at home, we saddled up and made a circle covering the neighboring ranches to locate any that might have strayed off their home range. I rode a big rangy horse we called Clearance, because he was leggy and did not fear high centers.

We knew there were a few watering at a little seep near Sacaton, a small Mexican settlement on the head of Indian Canyon. So we swung out around that way. There we found fourteen, and among them was a lame cow with a big unbranded fall calf. The cow was so lame that she could not be driven home, and Bill recommended that we brand the calf and leave them there till the cow could walk better.

"It may keep him from being boiled with beans or made into chili con carne or somethin'," he argued, and taking down his rope he made a dash for the calf.

THE calf was evidently in training, and seemed to have had some experience in avoiding ropes, which possibly explains his presence alive and in full possession of all his T-bone steaks and brisket stews. An unbranded calf is ordinarily looked upon as a liability in such an environment. He took to the brush, where Bill could not make his cast. We worked him out on the other side next to the Mexican settlement. Then he ran through the barbed-wire fence and stood in the middle of the plowed ground and contemplated us with bovine serenity. Then, when we finally found the gate, the calf crawled back through the fence and watched us from the outside. When he saw us come out through the gate, he crawled back inside the field. I then stayed in the field to haze him out so Bill could rope him when he crawled outside again. Then the calf scrambled through a division fence into another field.

The Mexicans at the house were watching us with interest, so I had to hunt the gate in that fence—and I had my fence pliers right on my saddle. I hazed him through the outside fence, and Bill roped him in a little open space in front of the house.

Bill talks Spanish fluently, and while I whittled shavings and built a fire to heat the running iron, Bill carried on a conversation with the audience. As we were running the brand on the calf's hip, an old Mexican came out and invited us in to have dinner.

While we were eating, I noticed a young man in bed in an adjoining room.

"Ask him if there is somebody sick," said I to Bill.

Bill translated my question, and said, translating as the old man spoke, "He says his boy Pancho is sick. . . . He has been down in Old Mexico. . . . Came home sick yesterday. . . . He wants to know what is good for viruelas?"

"What's 'viruelas'?" I asked.

"Small pox," Bill answered.

NOW, I am by nature a very polite person and try to observe all the niceties of social intercourse. In partaking of the hospitality of a neighbor I know it is not considered polite to get up from the table and run. But there are times when politeness is not a virtue.

When Bill caught up with me I had the cattle headed toward their home range.

"Say, man," said he, "you ran off too soon, an' missed the pie! 'Course it wasn't no ways like what Maw used to bake, but it helped to get that chili taste out of my mouth."

When we got home with those strays, there was Mr. Baile, a cattle trader from Zero. The stuff we had gathered to ship was hanging around the corral gate that opened into the pasture, and he had been out walking through them.

He said while the cows were a nice, well-behaved bunch of cows, he could not use them; but he would give me $22 a head for the yearlings. As I had sold the yearlings in the summer for $37, I did not take kindly to his offer.

"All very true," said he, "but you must know that the cattle market has slumped since then, money is tight, an' everything." He picked up a stick and began whittling. That's one thing about a real dyed-in-the-wool trader, he just can't trade without whittling. Now, I can whittle a little myself, so I got out my knife and proceeded to whittle.

HIS knife was working fine, and the nice, curly, soft pine shavings were fully two inches deep between his feet before I got him up to $23.50. Here I began to think seriously of letting go, when he mercifully struck a nail in his piece of whittling and made a big nick in his knife blade. Now, I do not like to take undue advantage of a man in his adversity, but business is business and I needed the money. Before he knew it I had edged him up to $28. At that figure he became nervous and began whetting his knife on his boot top. Under a sudden surge of impulsive generosity I gave them to him.

With his check for $100 in my hand to bind the bargain, I asked why he did not want to bid on the cows.

"Nothin' doin'," said he with an air of finality. "I'll lose enough on them dad-blamed yearlin's without saddlin' myself with somethin' I can't sell a-tall."

I hospitably extended my pocket whetstone, that he might put an edge on his knife, rustled him a nice piece of pine, free from nails, and in other ways demonstrated that I wished to [CONTINUED ON PAGE 23]

Then the calf scrambled through a division fence into another field

Fire in the Big Woods

A thrilling account of how a giant forest blaze is fought by the rangers and their hundreds of volunteer assistants—as seen and told

By Trell W. Yocum

Pictures by courtesy of the U. S. Forest Service

HAVE you ever seen a forest fire—a big one, that is? My wife and I saw one in the big timber of Lewis Range, Montana, last summer—an awful and a wonderful thing. Awful because it is just such forest fires that destroy many lives and millions of dollars' worth of timber in all parts of our country every year. Wonderful because of the majesty and beauty of its raging walls of flame and mountains of smoke.

I shall try to tell you here the story of the forest fire we saw:

It was nearly sunset when we first noticed the great white cloud ascending balloon-like above the crest of Altyn Mountain. We left off fishing and watched the fleecy layers pile up. We didn't know what it was. We called to our companion, Pete Walton, a U. S. forest ranger of that territory. With a few quick strokes of the paddle he rounded the point that shut off his view, and as his canoe thrust its nose toward us he gave a long-drawn whistle of surprise.

"Oh, boy!" he cried. "It's a real one!"

"What?" we asked in unison.

"Fire," he answered; "a good one in the big timber."

Walton didn't waste much time supplying us with information other than to say where he thought the fire was located, and that if we wanted to ride over after supper not to fail to bring our blankets.

It was dusk when we pulled into our camp at the edge of a clear glacial stream, and as we prepared our evening meal we stopped more than once to look at the great mass of smoke that continued to crawl higher in the sky. As darkness came on, the lower part of the mass was tinged with pink, deep near the horizon and gradually shading off into a dainty salmon. For all the world it looked like a gigantic stationary balloon swaying uncertainly in the heavens.

After a hurried supper we rolled up our blankets, saddled our horses, and started down the dark, fir-lined trail to the road two miles below. There we broke into a canter as we headed for the pink glow in the valley. We rode rapidly, but numerous horsemen passed us at a mad gallop, while the glaring lights of three autos shot by us as they tore over the rough road at breakneck speed. We had covered five or six miles before we first felt the smoke; and as we traveled on, it became much more dense, smarting and irritating our eyes and throats.

WE ENDURED this for perhaps three quarters of an hour—the smoke becoming heavier every foot, until at last we topped the rise and looked down into the valley. There before us lay a burning, seething inferno, great flashes of red running from trunk to tip of the pines, while the smoke, no longer fluffy clouds, rolled up in murky waves, lighted by the million sparks that swirled heavenward. If a man has never felt his insignificance, nor known fear in his heart, let him stand on the brink of such a Hades, with the heat of a thousand furnaces reflected against his face, and fight for his breath as we fought that August night.

We could not spur our horses forward, so, dismounting, we led them down the roadway that branched to the south, away from the path of the fire. Half a mile down this road we found our friend Walton and another forest ranger from the adjoining circuit establishing a camp with the aid of ten or a dozen Blackfeet Indians. Walton looked up from his stake-driving:

"Do you suppose," he asked, "that one of you would ride down to Babbs Crossing and direct all the men to come up this way?"

My wife volunteered.

"And there're food and tools coming too. Don't let them miss us," Walton added as horse and rider started down the road. Then he turned to me:

"Ever keep time?"

I shook my head.

"You'll never learn any younger. We need one where they're starting the fire line."

I picketed my horse, gulped down two big dippers of water, soaked my handkerchief in water, and started off with him.

On our way toward the line of fire control he told me that the fire had been started that morning by careless campers who had either failed to put out their camp fire or had dropped lighted matches or cigar stubs in the underbrush. It was discovered about noon by a half-breed who was fishing over in Spruce Creek. The nearest forest ranger was notified, and spread the alarm by telephone, and quickly set out to make a survey of the fire. There had been no rain for several weeks, and the underbrush was as dry as tinder. A fair breeze was blowing out of the southeast, and this carried the fire along at a rapid rate. It was evident that it had a big start, and immediately he dispatched messengers to the nearest telephones to round up fire fighters from the adjacent territory, and to order supplies and tools. By sundown the fire had gained great headway, although the breeze, still in the southeast, had dropped perceptibly.

AS WE stumbled on—the glow in our faces from the fire making our going much rougher than if we had only the darkness to contend with—I heard the ring of axes.

"What are they doing?" I asked.

"Didn't you ever see a fire line?"

I hadn't.

"A fire line," he explained kindly, "is a strip cut through the wood ahead of the fire to leave an open space that the fire can't jump. The best axmen are picked from the fighters, and they fell the trees, tops *away* from the fire, in a path several yards wide. Then the other men follow with shovels, turning up the earth to bury the underbrush. We're almost there now, so you can see for yourself."

A few rods farther on we came to the beginning of the fire line. It was perhaps twelve feet wide, laid almost at right angles to the wind, several miles beyond the nearest point the fire had approached. In the scarlet glow reflected from the smoke clouds, we passed sinewy men at certain intervals, swinging their axes with steady, well-directed blows. Behind them other men were grimly shoveling. Every few minutes came the cry, "She's goin'!" and then came the ripping crash of a tree as it tore its way to earth.

The choking smoke, the weird red color of the forest, the clanking of dippers in water pails as they were rushed to the thirsty workers, the shouts of men, and the crashing of trees seemed more like a fantastic drama than the reality of men fighting to save one of nature's most generous gifts.

With wet handkerchiefs over nose and mouth, Walton and I traveled the entire length of the fire line, checking the men on duty. As we started back to the beginning of the line he said:

"At ten o'clock they'll bring up the boilers of coffee. See that the water boys take it to the men while it's hot. At eleven, a new shift of men will come on. Get their names and numbers, and when the relieved men come back be sure to get their slips and send them back to the base camp. I'll be back at midnight, and we'll start burning back if enough men have arrived."

By ten o'clock the steaming coffee had arrived, and before eleven the fresh relay of men came. Morrill, the other ranger, was with them, and after I had checked their names and numbers he took them up the fire line. Presently the red-eyed, dog-tired men who had been on duty came straggling back. I collected their slips, gave them a drink from a boiler of coffee that had been warmed up, and sent them on down to the base camp.

WALTON had aroused my interest by his statement that they would "burn back" when he returned at midnight. It was long after twelve o'clock before he came up, bringing twenty fresh men. Twenty minutes later Morrill came, and reported that the line had been cleared sufficiently to burn back.

Walton, with six of the men, entered the timber on the windward side of the fire line. Morrill, with the balance of the men, scattered on the opposite side. Presently, on the side Walton and his men had entered, I saw seven patches of fire perhaps fifteen feet in from where the timber had fallen. The fire ran along the ground quickly, until it came to the fresh earth in the line of fire control, where it died out. The sparks which were blown beyond the line started tiny fires that were promptly threshed out by Morrill and his men.

After this operation along the entire line, Walton and [CONTINUED ON PAGE 28]

This is perhaps the most remarkable night picture of a forest fire ever taken. The exposure for this picture was only one fifth of a second. Thousands of dollars of damage was done by this fire near Lake Crescent, in the Olympic National Forest, Washington

Did You Start One of Those 98,118 Fires?

THE next time you go summer touring, just remember this: Careless campers cause millions of dollars' loss through forest fires annually. The big fire Mr. Yocum tells about in this article was caused by tourists who didn't put out their camp fire, or who threw lighted matches, cigars, or cigarettes into the underbrush.

This country's annual loss from forest fires is astonishing. In one period of thirty-six months, 98,118 forest fires burned 42,000,000 acres of timber worth $62,000,000. According to the Forestry Service, the average annual loss due to forest fires in the three-year period ending January 1, 1919, was $20,727,917. The average of the acres burned annually was 13,969,331.

The burning of brush in clearing land for cultivation was responsible for an average of 5,173 fires annually. To the railroads is laid the responsibility of 5,063 fires per year, while 4,597 fires are attributed to incendiarism. Since more than half of these latter fires occurred in the South, it reflects the common practice of Southern grazing interests of deliberately setting fire to the woods. Careless campers caused 4,096 fires annually, a large percentage occurring in the West. Lightning came in for 2,875 fires. Approximately one third of the fires are reported as of unknown origin.

The Mississippi Valley had fewer fires than the East and West, but they burned for the most part unhindered, through lack of a protective organization, so that the burned area was practically as great as that burned over by the multitude of fires in the East and West, which, because of *prompt attention*, were extinguished for the most part before they gained any considerable headway.

In view of the great losses, it looks as though the East and West could teach Mississippi Valley folks the A B C and X Y Z of forest protection. And when one considers our rapidly vanishing timber supply, it might not be an inopportune time at least to start looking for the key with which to lock the stable. THE EDITOR.

The $50,000,000 Cattle Loan Pool, and How You Can Borrow From It

By Eric P. Swenson

Western Cattleman and Chairman of the Board of Directors of the National City Bank

WHAT is the $50,000,000 cattle loan pool? How will it be administered? How can I as a cattleman obtain a loan, and what security must I offer for it?

These are questions that livestock men over the entire United States are asking. The answers to the above questions are neither as complex nor involved as some newspaper stories might make you think.

No one knows better than you livestock men how distressing has been the situation brought about by the sudden decline in values and the general depression in business. Unlike the industrial manufacturer who could cut his costs, reduce his output, or even close his plant for a time, you have been compelled either to obtain funds immediately for the usual financing of your operations, or slaughter your herds—your she stock along with the rest.

With your local banks unable to supply money, some of you found it necessary to make inroads in your herds by sending them to the shambles. This procedure not only tends to destroy the whole cattle industry, but also would wreak havoc on the nation's economic and industrial structure. Your breeding herds are the foundation of your business—of the entire beef supply of the country. Continue to kill off these herds at the rate they have been going the last few months, and it eventually would affect, directly or indirectly, every consumer in the country.

WHEN the seriousness of this situation was formally brought to the attention of the Harding administration, one suggestion was made that the profits of the Federal Reserve Board, anywhere from fifty to one hundred million dollars, be set aside to be loaned to cattlemen. However, the Administration felt that, in line with its policy of "more business in government and less government in business," the matter should be turned over to the banks; that commercial loans of the type involved could be handled more quickly and successfully by banks which make such operations their daily business than by the entry of the Government into another phase of business life.

When the committee of bankers representing both the East and the West met in Washington, they agreed that each section represented should raise half of the $50,000,000. This sum was quickly obtained, and became available for you cattlemen late in the month of July.

Since the fund is now available, the steps necessary for you to take to obtain a loan are comparatively simple. Go to any reputable cattle loan company in your home district, or, if there is no cattle loan company near you, go to your local bank and state your problem. If your local bank does not know of the availability of this fund, write to FARM AND FIRESIDE or your county agent, and they will send you the name of the nearest place at which you may make application.

It is not likely that the cattle loan company or your bank will ask you for any security other than the cattle. The deciding factor as to what percentage of the valuation of your cattle you may borrow will depend on your record as a credit risk in your own community, and upon your probable ability to meet your obligation in the next two and one-half years. In many cases a full valuation likely will be allowed.

Little Edwin Porch, who lives at Bridgeton, New Jersey, wasn't at all in a good humor as you can see, when his father, Harvey Porch, asked him to pose while he took this picture. And no wonder! Eddie's dog, Rip, had just cornered the father of all rats out under the corncrib, and Eddie had to leave his champion with the battle still undecided. Perhaps, too, he was just a little jealous of these Jersey spuds. They're almost as big as he is, and take up more room in the picture than really nice potatoes should. But look at Eddie on the next page!

You will sign a note for the entire sum, which will fall due in six months; but you also will have the privilege of renewal, where necessary, up to a total of thirty months, assuming the loan continues to be satisfactorily secured and you continue in good credit standing. The reason that the notes are not made out for a greater length of time is that six months is the maximum amount of time such notes are eligible for rediscount at federal reserve banks.

For those of you who do not understand the rediscount feature, a word of explanation may not be amiss. Suppose that you borrow an amount from your cattle loan company, which in turn has been obtained from the $50,000,000 cattle loan pool. If your note, which the cattle loan company has endorsed and placed with the pool, were made out for a longer period than six months, it could not be discounted with a federal reserve bank and would remain a frozen credit. However, as your note is for six months, and has the endorsement of your cattle loan company on it, any federal reserve bank will extend to a member bank advancing funds to the pool a sum equal to the full value of the note at a set rate of interest. Thus your note becomes a liquid credit or, in other words, a marketable piece of cattle paper.

SOME criticism has been made that because the loan is for a short time the red tape involved in renewing it would be too great. I consider this criticism entirely unjust. Do you consider it red tape to go to your bank or cattle loan company and arrange for the renewal of a maturing obligation? It is a simple business operation.

As to the rate of interest charged for cattle loans from the pool, banks making advances to the pool will receive interest at the rate of six per cent per annum on such advances; the rate on loans made from the pool will be somewhat in excess of six per cent, in order to cover cost of operation and contingencies, but in no event will a rate higher than eight per cent be charged by the pool. You may be sure it will be as low as circumstances will permit.

I also wish to correct the erroneous report that a brokerage commission will be charged in addition to the interest. The bankers who were instrumental in providing the credit hold that the chief purpose of the loan is that of [CONTINUED ON PAGE 20]

Why We Got This Statement

WHEN we learned of the $50,000,000 cattle pool that was being raised to finance stockmen who are hard pushed for credit, we naturally wanted to go to the best source to find out how it was being done, and we wanted to present this information in such a form that you as a farmer could use it to the greatest advantage.

So we went to Mr. Eric P. Swenson, who, in addition to being a large cattleman, is also chairman of the board of directors of the National City Bank, the largest financial institution in the United States. Mr. Swenson also is chairman of the committee of bankers in the East who raised one half of this fifty million dollars, and is in a position to know how the fund will be administered. His clear statement is presented on this page.

It is interesting to know how Mr. Swenson first became interested in [CONTINUED ON PAGE 20]

How My Wife and I Work Out Our Finances Together

Prize Contest Letters by Farm and Fireside Readers

Separate Bank Accounts

First Prize: Won by K. S. of Colorado

TO BEGIN with, our lives have been cast in a pleasant place—Grand Valley, Colorado, where our small fruit and alfalfa ranch is located.

We raise Bartlett and Kieffer pears, Rome Beauty and Jonathan apples, a few peaches, apricots, cherries, grapes, and other small fruits. Five acres are in alfalfa, and one is plow land for corn or wheat, used as feed for pigs and hens.

With our surplus hay, butter, a hog or two, eggs, and poultry, our annual turn-off on this one-man, one-team place is around $2,000, and is increasing.

For a long time I was not able to understand my wife's viewpoint as to finances. Even yet it is somewhat of a mystery to me, but I have learned to accept it for the sake of her greater peace of mind. To me the place and the bank account have always seemed, not mine, but ours, and it was immaterial to me in whose name they stood—hers or mine. When I needed anything for my personal use I got it, and expected her to use any money in her hands in a similar way, and I did not want any account of what she got or how much it cost.

However, as stated, this did not work. So with some funds, originally her own, as a starter, an investment was made in some good stocks earning around eight per cent. To these others have been added from time to time. The cow belonged to my wife, and when replaced by a heifer of our own raising the proceeds bought another share. As calves were sold, half they brought went to swell this fund, as did any money from packing fruit which would have been paid to help if hired, and which my wife saved by doing the work herself.

She has a separate bank account into which her dividends and these other funds go. She draws her own checks for what she wants, and for little surprise gifts and additions to house furnishings, which seem to give her as much pleasure as anyone else. She does not have to ask for money, nor account in any way for how she spends it.

Worries and losses, due to much sickness, have come to us during the eleven years we have dwelt here. There have been times when a loan from my wife's funds has helped us meet some heavy payment. These loans have been scrupulously repaid. It seems to be a successful plan, meeting the test of the years.

A Partnership

Second Prize: Won by Mrs. B. S. of Indiana

I THINK the "money" question has and does cause more dissatisfaction and trouble between man and wife than any other one thing. In my girlhood I learned with many a heartache how unreasonable some men are.

My father allowed my mother the butter and egg money after the feed was paid for. From this sum she was supposed to provide food, furnish the house, clothe herself and four children, buy schoolbooks, and send the children to school.

Fortunately, we were very healthy, so she did not need to pay any doctor bills. If she ran short of funds and asked my father for more, she was thoroughly cross-questioned.

I found there were many other homes conducted in the same manner, and I was so disgusted that I almost decided never to get married. However, the right man finally came along. But before I said yes I decided the money question must be definitely settled. He was more than willing to come to some agreement, as his home life had been very much like mine.

Our plan has [CONTINUED ON PAGE 30]

Jed Carter, of Shadow Dell Farm

Being the true story of a country boy whose sweetheart married a man in town, and what happened

By William Johnson

Illustrated by J. C. Allen

Sometimes it is funny, but always it is pathetic to see a big strong man who would stand a good show in a bare-handed fight with a wild-cat, made practically useless by a little mite of a woman

I SHOULD like to have seen what some great fictionist would have done with Jed Carter. Here in our quiet little neighborhood, Jed has lived a story that thrilled every one of us. He is a dark, lean, silent man of about thirty-six, with a reputation, years back, of permanently retiring from circulation ninety-five cents of every dollar he got.

Twelve years ago Jed bought a hundred acres of swamp and hills that no one else wanted. He has made as pretty a little farm out of it as a real-estate dealer would want to picture on the cover of his catalogue. Work seemed to be the only thing Jed knew. They say he wore out an alarm clock and two lanterns every six months, clearing up that farm, but in nine years he did a magnificent job.

I DROVE by with Uncle Dave Dayton the day Jed nailed the name he had given his farm over the arched gateway opening on to the curved, cedar-bordered drive. Shadow Dell, it read, and neither of us could have been more surprised if it had been an announcement of a free chicken dinner to the entire neighborhood. We hadn't thought that there was a streak of sentiment that size in Jed's iron make-up.

"Now, I wonder who he'll marry," Uncle Dave said. He was driving with one hand while he stroked his pointed silver beard with the other, and thinking so intently that he absent-mindedly stepped on the accelerator instead of the brake, nearly running the car into a ditch.

"You've got a lot of faith in signs," I laughed, when we were once more skimming safely down a smooth stretch of macadam. "Jed wouldn't consider anything but an heiress, which Bay Port hasn't got."

"Don't you fool yourself," Uncle Dave said. "Jed isn't a miser. He's just a one-idea man. He goes after one thing at a time, like that farm, with all there is in him. He's ready for a mate now, and it'll be the same way. That little chap with the bow has arrows with special long points on 'em for Jed's sort."

It turned out much as Uncle Dave said. Dora Lorring came to teach our school that fall, and from the beginning it was plain to see that she was the center of the universe to Jed. What is more, a half-dozen other young and old Bay Port bachelors were full of the same idea.

Dora had the time of her merry young life. Wherever she wanted to go she had the pick of every sort of conveyance from Hank Newberry's spavined old sorrel and buckboard to Jed Carter's shiny new "six." And she was as likely to take one as the other. She played her suitors pretty evenly, though we did think Jed was a little in the lead. We could never be sure, for Dora was one of those golden-headed, laughing little witches that a man can understand about as readily as he can gather up a bucket of moonlight.

Jed followed her around at parties and picnics, looking as mournful as an orphan lamb on a windy hillside. Sometimes it is funny, but always it is pathetic to see a big, strong man who would stand a good show in a bare-handed fight with a wild cat made practically useless by a little mite of a woman. It lasted during the entire school term, then, woman-like, Dora ignored all the farms and fine homes laid at her feet, and married George Hess, the fat, bald, pug-nosed, poverty-stricken freight agent in town. I don't pretend to know why to any further extent than that she and Jed had a passing quarrel, and that George could make a violin laugh and cry.

EXCEPT for the night the engagement was announced, you couldn't see much change in Jed. Maybe he was a little silenter than before, and worked harder; but he could scarcely have beaten his previous records in either way enough to be noticeable.

The announcement came as a surprise at a party the Ellisons gave, which was where Dora boarded. Jed was among the first to congratulate the smiling, flustered pair, but I didn't hear what he said. I only saw the corners of his mouth twitching, his big hands fumbling with his vest front, and the sham of a smile he managed to hide his hurt behind.

I thought of him going back to his little house and finding a silence as of death in its still rooms. In his dreams it had been a home, warm and glowing with such pictures as only the love of a clean man for a good woman can paint. And now it was just walls and a roof, and the man was standing there with that desolation in his heart, hiding it with the little pretense he knew. It is the heritage of the country—that stoic power learned from frost and flood and drought—to take your pain calmly, as it comes.

"Words won't help him," said Uncle Dave when he and I sat out on the porch a little later. "They never do help much. Every man has his own sources of strength and comfort, and he's got to go to his own when the great need comes. Jed'll find his in the everlasting things he's lived with. They're full of healing."

A YEAR later George Hess took sick with some obscure malady that the doctors said could only be cured by an expensive operation and a rest in a warm climate. Neither George's folks nor Dora's had any money, and no way to borrow the thousand dollars that would be needed. While we were talking the dreary situation over, a joyfully surprising thing happened.

One of the great surgeons from a hospital in a nearby city came to Bay Port, explained that he had heard of George's sickness through a patient from the next town, and that as the malady was a rare one he would be glad to perform the operation for no other pay than the scientific pleasure it would give him. He would even bear the expense of the Southern trip—that being necessary to complete the cure—and it could be repaid later.

Of course the offer was accepted, and we waited anxiously for news of the outcome.

It was six weeks later when we got word from a seaport village in Florida. It came to Uncle Dave, as it naturally would. Just a six-word [CONTINUED ON PAGE 20]

The Tragic Story of "Hollow-Horn Bear"

By Remington Schuyler

The artist who painted the Indian on the cover page

"HOLLOW-HORN BEAR," chief of the Brulé Dakotas, whom I knew, and whose picture I have painted for you on the cover of this issue of FARM AND FIRESIDE, has been called the finest looking man of all the Sioux. His face and bearing would mark him anywhere as one given to command. And he did command.

Hollow-Horn Bear was a man of brains and intelligence. He was one of the greatest leaders the Indians ever had. He felt deeply the tragedy of the American Indian, resented the treatment of them as children by the Government. In his lifetime he warred against the whites in battle, and in legislation; he led his people to peace with the whites, and served as a police chief in uniform on his own reservation.

The last time I saw this fine old man was at a combination fair and Indian celebration. He had been farming diligently. He brought in a great pumpkin and a beautiful saddle stallion to compete for the blue ribbons. All through his life, and to the very end, he was still a leader, always striving to lift his people into the light of a higher civilization. He sought the dawn of better days and the larger life of an American citizen for himself and for his fellow Indians.

At sixteen Hollow-Horn Bear went on an expedition against the Pawnees. At eighteen he was fighting the United States troops in Wyoming and Montana. At nineteen he harried the Union Pacific laborers while they were building the railroad.

Later, as the spell of civilization crept slowly West over the open ranges, he abandoned the warpath. Because of his trustworthiness, he was made captain of Indian Police at Rosebud Agency, South Dakota. In 1881 he arrested Crow Dog, murderer of Spotted Tail, whose picture I also painted for you several months ago.

In 1889, when General Crook was sent to make an agreement with the Indians, Hollow-Horn Bear was chosen spokesman for the Sioux, being considered an orator and leader of unusual ability.

SO FROM nomadic warrior he shifted to the more settled effort of trying to lead his tribesmen by counsel and by example.

There was a strange brevity about his speech. He chose words that conveyed much.

Once an inspector, returning after a twenty-year absence, called the Indians to account. In his long harangue he told the patient red men how the Government had fed them, clothed them, given them watchful care and kindness. Yet, after twenty years, they were still painted savages—children. He was disgusted with their never growing up.

In the stolid silence which followed, Hollow-Horn arose. Ripping off his blue policeman's coat, with its brass buttons and stripes, and his gold tasseled sombrero, he flung them at the feet of the inspector.

"There is our answer," he said. "Twenty years ago you found us savages. For twenty years you have given us beads and looking glasses and pretty striped blankets and ribbons, and *treated* us like children. Then you ask, 'Why are you not men?' Those shining things and pretty colored trinkets are your answer."

Hatless and coatless he strode away over the prairies. No more was said. The council broke up. It was an indictment of the Americans' childish treatment of the Indians.

With his simple, clear-sighted vision Hollow-Horn had voiced the truth in words that bit deep. Few have forgotten them.

In Hollow-Horn's life there were other serious times, when the old man was sorely troubled.

Once a government agent came to get the third son of a close friend of the old chief to take him away to school. Hollow-Horn met the agent and said:

"So you want this third boy? You say the Great White Father has asked for him? I heard that the other two times. You say he is to be made like the white man? Yes, the other two have been so made.

"This boy, this third ward, is my pride, a great joy to my old heart. It makes me feel young again to have this fine boy with me.

"Like the first boy you took, this one is noble and honest. He speaks the truth. He is good.

"I KNOW all about the white man's school. That first boy went years ago. When he came back, after four years, he lied and stole and cheated, just like the white men.

"I know it to be a thorough school, for the second boy was a truthful boy before he went away. I know that that second boy was quiet mischievous, but good at heart and speaking the truth. He, too, came back a no-account, who lied and stole and cheated.

"Now they want this third boy. Since the Great White [CONTINUED ON PAGE 17]

Do You "Keep a Few Cows," or Do You Make a Few Cows Keep You?

By W. W. Swett

Who is Associate Professor of Dairy Husbandry, University of Missouri

A SCHOOLBOY once wrote the following composition on the cow: "Cows is good; cows gives milk; but as for me—give me liberty or give me death!"

This boy came very near expressing the ideas of many farmers of not so long ago.

But times are changing. The farmer of to-day does not consider milking cows as distasteful as he once did. And this change in attitude is getting results. The boys are getting interested; they are seeing that proper methods bring results; they are being treated more as partners in the business, and they are sticking with the "old man."

It is claimed by some that the use of dairy products can be held responsible for the high development of certain nations. Whether this is true may be questioned, but it *is* true that those nations which have achieved most are nations in which dairy products form an important part of the diet. List any group of agricultural districts of States on the basis of (1) conservation of soil fertility, (2) best system of farming practiced, (3) greatest financial prosperity, (4) greatest intellectual development, and (5) best examples of thrift, and you will list them very nearly according to their dairy development.

No business can exist for long except on its own merits. Here are some of the factors that link dairying so closely with progress:

A beginner in the dairy business can start on any scale and gradually build up his business as his capital increases. I have in mind a young man who started in the dairy business six years ago with an old horse, one cow, and all kinds of enthusiasm, but no capital. To-day he has 80 head of the finest Holsteins, most of them purebreds. He is doing a retail milk business of about $30,000 a year, to say nothing of a splendid business in purebred Holsteins. His small herd took about 100 ribbons at the fairs last fall.

SUCH a small start in grain-growing or fruit-raising would hardly be practical. An expansion of this type of business almost invariably requires more land. Such farms require a heavy initial investment.

The first income on a dairy farm is received at the end of the first week or month, depending on the disposal of the product. The income and expense varies only slightly through the year. Profits can be put back into the business, and the business will grow just as fast as profits permit.

The dairy cow is not easily "frost-bitten," nor does a heavy wind or a wet or dry season affect her seriously. How is it with other types of farming? An early fall or late spring frost will ruin a fruit crop for that year. A wet or dry season or a cold winter without snow play havoc at times with the grain farmer.

The grain farmer and the fruit grower must live for a whole year on accumulated or borrowed capital, trusting the Lord that weather conditions will be favorable and that pests won't ruin his crops. If such a calamity comes, as it very often does, a whole year's prospects are frequently wiped out. Many of these farmers find it necessary to borrow money for one or more years before they get a good crop. The income is often big when it comes, but it is not certain.

On the other hand, the only losses which the dairyman faces are an occasional loss of a cow or calf. He keeps on doing business, and his income keeps "incoming."

In the final analysis it comes down to the fact that the general farmer is very much at the mercy of the elements, while the dairy farmer is not.

One of the greatest problems in the whole field of agriculture is that of maintaining the soil fertility. It is questionable if soil fertility can profitably be maintained under a system of grain-farming. Soil-robbing can go on for a time, but sooner or later something must be done or the soil will be worn out.

Just to contrast grain-farming with dairy-farming let us consider the value of the fertilizing elements sold in grain and dairy products. Considering the war-time prices per pound of nitrogen, available phosphoric acid, and potash to be 40 cents, 8 cents, and 30 cents respectively, and the corresponding pre-war prices 20 cents, 6 cents, and 6 cents, we have the following table:

FERTILIZING VALUE REMOVED IN DIFFERENT FARM PRODUCTS

Product sold from farm	Price per unit	Value per ton	Value of fertilizing constituents per ton of products sold	
			War prices	Pre-war prices
Wheat..	$2.50 (bu.)	$83.33	$23.14	$9.59
Corn ...	2.00 (bu.)	71.42	18.08	8.60
Milk ...	.15 (qt.)	139.53	5.62	2.56
Butter*.	.75 (lb.)	1500.00	1.28	.64

*The only fertilizing element in butter is the nitrogen in the curd. In the case of butter sold from the farm, all the other fertilizing elements are left on the farm, and eventually find their way back to the soil.

The dairy farmer is very likely to overlook the manure pile in figuring the income from his cows. And yet, the manure pile is a veritable gold mine when properly handled. The ordinary well-fed dairy cow excretes at least ten tons of manure a year. Assuming that half the entire amount is lost in the pastures, that leaves five tons collected at the barn.

According to the Soils Department of the University of Missouri, manure has a crop-producing value of $4.20 for each ton used. Thus the average cow produces in this way fertilizer worth $21 a year. The above figures are conservative. The Ohio Experiment Station has figures to show that, properly handled, barnyard manure has a potential crop value of over $10 a ton.

The dairy farmer adds further fertility to his farm by purchasing rich feedstuffs, some of which are also returned to the soil.

The successful dairyman usually grows large quantities of legumes which gather nitrogen from the air through the nodules on their roots. Legumes are almost essential to the dairy cow, as well as to the soil. The roots and nodules stay in the soil, and aid in keeping the soil balanced.

How does the dairyman solve his labor problems? The grain farmer or fruit grower can usually put off a piece of work for a day or two without ill effects. Not so with the dairyman. His cows must be fed and milked every day. If only one hired man is employed, the loss of that one man is not serious. But suppose he is employing eight or ten milkers and they suddenly leave?

A good example of a farm that took care to prevent such difficulties is the Hartman Farm of Columbus, Ohio, where several hundred cows are milked. It has seemed advisable at that farm to do hand milking. It was recognized, however, that a labor strike was possible, so a complete milking machine was installed and kept for emergency. The result has been steady labor. What better insurance could anyone ask? The same insurance can be profitably provided on smaller dairy farms.

BUT while the labor problem is a rather serious drawback to the dairy business, it is also one of its assets. How is it during June, July, and August in the Middle Western States or in the great wheat-growing regions? Every farmer needs a big gang of harvesters at the same time as his neighbor. He must have them or his crop is lost. He pays almost any price to get the necessary help. It is one big scramble to see who will get a newcomer first. His labor bill, as a result, is high, and the help he gets of a mediocre sort.

But the dairy farmer has a regular amount of feeding and milking to do every day in the year. He also must take care of the milk, clean the barn, and raise his crops for feed. His work is steady throughout the year, and for that reason the dairyman can usually secure and hold a much better grade of help than farmers in other lines, provided he treats his men decently.

Dairy-farming fits in well with other types of farming. The manure can be used to good advantage in fertilizing any kind of crop. If cream is sold, or if butter is made on the farm, the skim milk can be used for raising calves and hogs. Skim milk has a high feeding value, and for that reason dairying and hog-raising go hand in hand. Fruit-growing on a moderate scale also goes very well with dairy-farming.

The dairy cow is the most efficient food producer in the world. Pretty broad statement, I know; but it's true. A very striking piece of work performed some years ago by Dr. P. F. Trowbridge of the University of Missouri proved this. A chemical analysis of the body of a 1,250-pound steer was made. This steer had been raised and fed on the university farm for two years.

AT THE same time a dairy cow, Princess Carlotta, in the department herd produced in one year 18,405 pounds of milk. The food material this cow produced in one year was four times that contained in the entire carcass of the two-year-old steer, as the following table shows:

	18,405 lbs. Milk	*1,250-lb. Steer*
Protein	.552 lbs.	172 lbs.
Fat	.618 lbs.	333 lbs.
Sugar	.920 lbs.	None
Ash	.128 lbs.	43 lbs.
Total dry matter	2,218 lbs.	548 lbs.

The 2,218 pounds of total dry matter in the milk was practically 100 per cent digestible. The 548 pounds of dry matter in the steer included that in the hair, hide, bones, tendons, and internal organs, a great deal of which was not even edible, and of the edible part only a portion was digestible.

Princess Carlotta produced three times as much protein, three times as much mineral matter, and twice as much fat as the steer, and, in addition, 920 pounds of sugar. All of these were edible and digestible. The cow keeps on making good year after year, the average productive life of a dairy cow being six years.

Using the averages in Prof. C. H. Eckles' "Dairy Cattle and Milk Production," we find the average production in pounds of dry matter per year by cows of the different breeds to be as follows:

[CONTINUED ON PAGE 26]

My goodness, the sun has come out! Eddie just learned that as soon as he got over his mad, and smiled so his father could take a good picture, he could go back and help Rip dig out the enemy, so he decided life wasn't so hard after all. Maybe you remember having seen Edwin before. He had his picture in the November, 1920, Farm and Fireside, but then he was exhibiting some of his father's prize corn

Six Ways to Help Solve the Labor Problem in Your Dairy

DAIRY work is confining. It is a 365-day-a-year job which cannot be neglected. But there are several things that will reduce this problem to a minimum on your dairy farm:

1. Have only good cows. No use wasting time with light milkers.
2. Make the dairy work, as far as possible, a part of the regular day's work. You can't expect the hired man to get up to milk at four o'clock in the morning, do a day's work in the field, and then milk till nine at night. Help can't be kept on that plan.
3. Have a barn that is light and cheery, and one that can be kept clean. Then insist that it be kept clean. Install a litter carrier, manure speader, and such other modern conveniences as possible to lighten the labor.
4. Have everything systematic and convenient. Your helper may object to the "system" at first, but he will like it after he has tried it.
5. Remember that the hired man is human. At least one whole day off every month will get good returns through better satisfaction and interest in the work.
6. Give your man a good home. If he lives with you, give him a good, clean, airy, pleasant room. If he has a separate house, make that house attractive and convenient, with a respectable place to take a bath. A garden plot and a place for a cow and some chickens will help keep him contented. He will respond to these little things if he is the right kind of a man.

W. W. SWETT.

We Made 30 Acres Earn Us a Living and Send Our Boys to College

By George W. Brown

A Farmer who lives near Mt. Corry, Ohio

MY WIFE and I had always planned to give our two boys a college education. It has meant hard work for all of us, for a college course costs a good deal of money, and it also means that we have not added any acreage to our farm. We are farming to-day only the 30 acres we started out with nearly thirty years ago. We have not only made a living from this farm but have also made it pay for the boys' education. At first it was barren and wet. Tile drainage fixed that. But the greatest thing that helped us forge ahead, that gave incentive to all of us to work and save and plan, was our set of farm accounts. Without our books telling us every day just where we stood financially, we would never have been able to do what we have done.

Before I started farming I worked as a salesman in a large hardware store. One of my duties was to help make the yearly inventory of everything in the store. I did not keep the books, but I observed how the management was able to straighten out many problems by going to the accountant and figuring with him on what lines were paying, and what ones were not, and the reason why. They had a system that enabled them to keep their hands on the throttle.

But when I got into the farming business I forgot all about what the store had taught me about the value of accurate accounts. For a few years I farmed in the usual haphazard way. I took money in and spent it without anything to show whence it had come or where it had gone. I knew, of course, that it came mostly from the sweat of my brow, but I hadn't the slightest idea as to which crops or animals were paying and which were not, for I had no record of what different things cost.

I soon saw that we would get nowhere until I got a little system into my farming, just as the hardware men had. So I started a set of books. My first yearly inventory of the farm, made over twenty years ago, is before me now. It is very simple, and yet it shows just what we had made and what our working capital was for the following twelve months. In another section are our sales kept by the month; expenses are arranged similarly. At the end of any quarter or any year, or on any day in the year, we can know by figuring a few minutes just how successful our different ventures have been.

In addition to the account books, we keep a careful memorandum of what happens each day, such as when certain crops are planted, condition of the weather, when livestock or crops are sold, etc. For example, we wanted to know how long it took our corn to mature. Our memorandum book told us that we had planted it May 9th, and that the first ears were harvested on August 19th, making it just one hundred days. This farm record takes little time, and it has been the means of settling many disputes.

WE HAVE kept the same system of books and records in operation for over twenty years, and it has paid dividends over and over again on the small amount of time and trouble involved. It has given us incentive, faith, and courage, for we have known ever since we started these accounts just how we stood all of the time. When we made money we knew what made it, and when we lost money we knew the reason also, and often we were able to improve or else drop that line altogether. Yes, bookkeeping has paid us, both in money and in the greater fun we get out of life.

In May, 1892, we came into possession of our 30-acre tract in northwestern Ohio, at a figure around $40 an acre. There was an old log house, a dug well, a garden full of mustard higher than our head, no barn, not a single fence even on the line divisions, nor a tile drain under the surface.

We got it to make us a home. I went into an open wheat field, early in May, staked off the best building location I could find upon that tract, started hauling stone 12 miles for a foundation, brick 10 miles more, to wall up a well, and lumber from the mill to erect us a house. Luckily I was handy with tools, for I could not have hired a carpenter and paid him wages inside of ten years, for I had no money to pay for materials, save what I borrowed. But I went to work with a will, and on the advice of my good father-in-law rented a 40-acre field for corn.

Once upon a time there were five little goslings Eenie, Meenie, Minie, Mo, and Catchie. Then years passed, and the little goslings grew into geese, and lived and died—all except Mo, and here he is, a sedate old gander on the far side of his seventeenth birthday. Mo can't imagine anything nicer than just living where he is, with Annie Jane Hopkins, known as "Chubby," and her grandmother, Mrs. Grove Hopkins, at Hempstead, Long Island. Mo is a family pet, and he and "Chubby" are great pals. He likes her especially well when she brings him his dinner in his own special bowl

His words I well remember: "George, you can pay for your home easier if you have piles of corn."

I raised a bumper crop of corn that year, and by the day before Christmas we were in our new house and had converted the old log house into a makeshift barn. Our family gathered in on Christmas day, to give us a house-warming, and a Christmas party, which is to this day an annual affair in some one of our family homes.

But this corn crop only got us started. I had to rent 40 acres the next year, and the next to get out. The wheat crop was good, too, the next year—28 bushels per acre—and I stored it until I needed the money to pay off a note on our home. Three weeks after it was snugly stored in a neighbor's barn, fire demolished the building, and away went our wheat crop. There was no insurance. I borrowed money of a widow woman, and paid off the note. The 40 acres of corn grew like weeds all summer long, and I never had a better crop.

Selling time came; taxes and notes came due; a team had to be paid for; our second baby came. The old dug well got us down on our backs with malaria, and doctors had to be paid. I started marketing our corn at sixteen cents per bushel, hauling it seven miles to get that price. I fed load after load to a bunch of hogs. The buyer bid 2½ cents a pound, and I had to take it or keep the hogs. Our books show that it was eleven years before we were able to realize 10 cents a pound for our hogs.

That winter we sold our butter for eight cents per pound, and eggs brought only seven cents per dozen.

We got our horses paid for the next harvest, by selling some hay at $4 per ton, hauling it 10 miles for shipment. It was lucky that we got them paid for when we did, for two weeks later they broke down a gate, ate rye, and foundered. Both died within a week. This meant buying a new team. Luck again. Horses were cheaper, and I bought a good mare for $60. I picked up another horse from a neighbor for $25, and husked corn from the stalk at $1 per day, from sun-up to dark, until the animal was ours. I worked him two summers, and traded him for 10 bushels of a new variety of wheat, known as Poole.

Those four years were strenuous ones. We had been operating rented ground all the time, leaving our own 30 acres in timothy, being told that without ditches it was too wet to raise a crop. And I believed our informers, for one wet harvest I watched the hay floating over the field, later washing away with the freshet.

I quit renting, and came home to rest; or, rather, to go to work on our bit of a 30-acre farm. I had cultivated none of it up to this time, save the garden plot, a patch of potatoes and an acre with 50 young orchard trees on it.

In the spring of 1896 I began breaking up the stiff timothy sod, to be planted into corn. What a wonderful crop that soil would bring. It was black, rich, soft, loamy, full of root fibers, and the harrow needed to do nothing more than level the soil, which shoved about like a bin of clover seed.

That summer! I shall never forget it. Rainings. It rained about every night, and twice every day, and sometimes when we were eating our noonday meal. What cultivating we did was done with a hoe and hip boots, and once with the cultivator. Away went our gold, aglimmering, among ragweed and Spanish needles; and the latter I remember were fierce, when I tried to gather a little of the frosted fodder for winter feed.

THE following winter I started tiling. I ran one string of five-inch tiles through the farm, and in the field where we proposed raising our next crop of corn. Another wet season, but not so bad, and a pretty decent stand of corn, but mostly fodder and nubbins, save over the tile drain. There stood a fine shock row of corn. That was the best lesson I ever had in drainage, an undeniable lesson, right out in the open, too. I had been trusted by the elevator man, who also dealt in tile. I husked out the shock row, made it pay for the tile, and our accounts show we had $37 left.

It took grit to keep accounts in those years, even for an ambitious fellow who was just starting up as I was, and wanted so much to have a home for his family and friends.

One of the things I learned was that that farm, with its wet, muddy feet, was making us poor. We had been trusted at the grocery store, and now we were in debt to it—more than we had thought. One fine spring day when the hens were cackling and the cows were going out to grass in a few days, which meant more butter, and already more eggs, I went into town. I thought the grocer just a bit sulky and right he had to be, for he had carried us nigh on to three years. Anyway, whether he was sulky or not, I had made up my mind to take him in as a partner until we were square. I made him a proposition that I would bring him all my farm trade, buying with it what things we needed: he was to pay us half the balance due in cash, and to apply the other half upon our charge account.

With this plan our store debt diminished rapidly during the flush season. It was a splendid idea for both of us.

I kept on ditching, and bought more tile on credit, for I found they paid for themselves easier than anything else. But I could not get them into the ground fast enough.

I had to form another partnership. I went to our banker and asked him for money with which to buy tile. Next to buying a farm, he told us he should rather have a mortgage on a load of tiles. "If you do not pay it, the tile will," he said.

Now every foot of our farm is riddled by invisible channels which lead down to those tile drains, and no crop suffers with wet feet now.

ONCE I got discouraged. At a farmers' institute an argument arose about the education of our sons and daughters. One well-to-do farmer, owning a quarter section of land and living only a few miles away, stated that his two sons were being put through high school, but that he could not spare the money to give them any college training. Let me tell you about those boys: One of them is in Pittsburgh to-day, an underling in a steel mill; the other one is operating a one-man poultry plant in a southern Ohio village. The father? He and his wife retired to our village. One of their snug dwellings houses a tenant; the other house, going to rack and ruin, is empty.

We had two boys, just turning the grades, and it had been my ambition to put those boys through a first-class high school, and then as far as they desired to go through college. But if a man with two boys and five times as many acres as we had could not do this, how [CONTINUED ON PAGE 29]

Immigrant Farmers

VERGENIE HAGOPIAN may have to change her habits a little. In her Armenian home she has lived as her ancestors did in 800 B. C. Those customs haven't developed here. She will find, however, the severe cold and great heat of her native winters and summers duplicated in the great grazing lands of the West.

NO MATTER where they come from, the immigrant farmers who land on our shores can find a soil and climate "just like home" somewhere in the United States. In the soft, warm sunshine of the Virginia pine belt, Angelica Sueda will find a climate very like that in her own north Italy. New faces, new language, she will encounter, but human nature will be just the same.

GIUSEPPE DOMONICO is also Italian, but he is used to a climate quite different from that of Angelica Sueda's native province. The north and the south of Italy differ as greatly as do Massachusetts and the Carolinas. Perhaps he will be most at home in the orange groves of California. Of course the strange little Japs may be a drawback—he has none of their kind in his native Calabria—but the change from black bread and a straw mattress may reconcile him to their presence.

RIWKE TOBLOTXKY is a Russian Jewess, sixteen years old, and has just arrived in America, where she expects to ply her trade as a ladies' tailor. Riwke will not be lonesome. In fact, statistics show that one fourth of the world's Hebrews are already in the "Promised Land"—most of them being in the large cities, where Riwke will likely locate. If she misses the cold and heat of her native land, she can find them again in our great Northwest.

"THE Campbells are coming, O-ho! O-ho!" and so are Willie and Meggie MacIntosh—kilts and all. They look a bit serious, especially Willie, but who wouldn't with a whole new country to get acquainted with? If these youngsters miss their mountains and heather, they can find them both in rugged New England. The Scotch seem to have chosen Minnesota as their particular corner, because the growing of wheat and oats, the industry most familiar to them, is carried on there.

MARYENI GUEUZUBEUYUTIAN purchased her beautiful kimono back home in French Guinea, South Africa. Since she was brought up where there are mangrove, palm, and banana trees, and pythons that swallow sheep whole, she will probably be happiest in the far south Florida. She may have a little trouble over the work she is best fitted for—cotton-picking—because the natives usually resent any intrusion of strangers, but life always does have its rough places.

Pictures by Paul Thompson

TO Jorge Sanchez, native of northern Spain, our farming methods will be a revelation. In Spain to-day they still plow with an iron-shod stick which scratches the ground to the depth of a few inches. Jorge ought to get on if he chooses to settle in the orchards of Oregon. There, besides modern methods and machinery, he will find a climate very like that of his own country.

MILWAUKEE, and Wisconsin in general, will welcome any such Karl Muellers as this veteran from Danzig Free Port. He looks used to hard work, and in his north German country the land needs continual labor to keep it fertile to grow the rye and wheat and barley. Plenty of room here for men with that training. Perhaps, though, this would be too far inland for such an old sea captain as this.

Pigs and Printer's Ink Showed Me How to Increase My Farm Profits

By Robert L. Voorhees

I REMEMBER well the first time that I advertised. I had a fine bunch of young Berkshire shotes that I knew should net me a tidy profit. They were well-bred porkers, and in my opinion were worth more than I could get anywhere in my neighborhood. I decided to broaden my market. So I sent a little advertisement for insertion in a farm paper that had a large circulation in my State. Being new at the game, I wasn't going to throw any money away, so I made the ad nice and short. Here is how it read:

BERKSHIRES—20 fine shotes for sale. Price reasonable.

After the ad appeared I sat and waited for the flood of inquiries and purchasers to come. But they didn't show up, and my experience in advertising would probably have ended there but for the fact that I had taken in some boarders that summer. I got to talking to one of them, a shrewd, youngish chap, on this subject of advertising.

"Why don't you advertise?" he asked me. "With this fine farm you've got all the opportunity in the world to make a good thing of it. I'm no farmer myself, but I do know advertising. That's my game."

"I tried," I told him, "to sell those shotes of mine, and I only got three inquiries, and no sales. So I quit."

The upshot of it was that I got the paper for him and showed him the ad. He gave a glance at it, and then told me that the advertisement was no good.

"I'll write an ad for you," he said. "You run it, and if it doesn't sell your pigs I'll pay for it. Is that square?"

It looked mighty square to me, so I took him up. And I sold every one of my shotes at top prices! I could have sold more.

That little incident made me think. I saw that advertising was a good thing. If rightly done, it didn't *cost* money; it *made* money. So I decided to work it up. The young advertising man had told me a lot of things that had stuck.

"The main thing," he had said, "in advertising farm products, or any products, is to tell everything honestly and easily. Don't take pains to explain all the reasons why your stuff is best. Don't urge people to buy. Be sincere and to the point. That'll convince people that your products are what they want."

WHEN I came to think of it, that is what the ad he had written for me was. It told everything in a natural, easy way, as if I didn't care whether I sold such fine stock or not. It ran:

BERKSHIRES—The finest pork pig. I have 20 head of fine shotes for sale at —— dollars apiece. They are money-makers. Their sire was grand champion at —— State Fair in 1914, and took first prize at —— State Fair in 1915. The dams are of the famous —— strain. Shipped f. o. b. this station, on receipt of your check.

That ad sold my pigs. I figured that if I could write as good ones I would be able to sell all the produce of my farm in the same way, at top prices.

That was long ago, and I have learned many things since then. But confidence in my stuff has been the main reason for my success. Results in advertising depend upon several things not the least of which are clear, convincing ads—an honest product, backed by square dealing.

It is not necessary to go into advertising on a big scale. If well done, very little advertising will bring fine results. Get a good start and your business grows naturally. In the first years I just advertised here and there, when I had stock to sell. Now I spend three cents of every net dollar I make for advertising, whether I have anything to sell or not.

The main thing is to get people to know your name and the reliability of your products. It took me quite a time to do this, as I had to learn everything from experience, and I didn't quite know what I was working for.

If I were to start all over again, in a new locality, the first thing I would do would be to put in some spare hours painting the name of my farm, its address, and what it sold on all of my wagons. When I went through the streets of the town with one of these wagons, people would see the sign.

Perhaps it wouldn't make much of an impression. But later they would see it again. And then again. Some day they would want some apples or some vegetables. Then that sign would come back to them. They would write or send to me. By good products and square dealing they would become steady customers. They would tell their friends, and my profits would grow. For the same reason I would put a nice-looking sign at or near my gate. Seeing it again and again as they went by would fix it in people's minds. And the cost of the whole thing would be almost nothing.

At present I run a retail milk route, sell butter and eggs, apples and pork. I sell nothing to distributors. I make advertising take me directly to the consumer. An find advertising much cheaper than middleman. In the beginning I wor like a horse, and found that the middle lived on my work. That is the reason I him out.

In order to sell my stuff, I advertise daily paper. People see it every day. T they see my clean wagons and trucks. T they eat some of my apples or some of pork. As a result I have had to com with several other farmers to meet the mand for my products. I buy their p ucts at a squarer price than the middle gives, and sell it under my name, whi have made a guarantee for purity square dealing. But I make sure that t product is as good as mine fore I sell it as mine.

AT PRESENT, writing adv tisements for farm produ is fairly easy, because there so few who are doing it. Pr soon, when more farmers ad tise, I'll have to jump to make advertisements better t theirs. But my name is es lished. I'm glad I started ea for a well-known name is best advertisement in the w

The first thing to do is point out a need. See what you have sell, and then ask yourself why peo need it. After you've found the need, out what will make them buy it. A wom for instance, doesn't buy a ring for same reason she buys a quart of milk. selling the first you appeal to her love of beautiful, in selling the second you ap to her need of the useful.

But, because there are thousands shops selling fruit, vegeta milk, or butter, it is bes show why your product is useful.

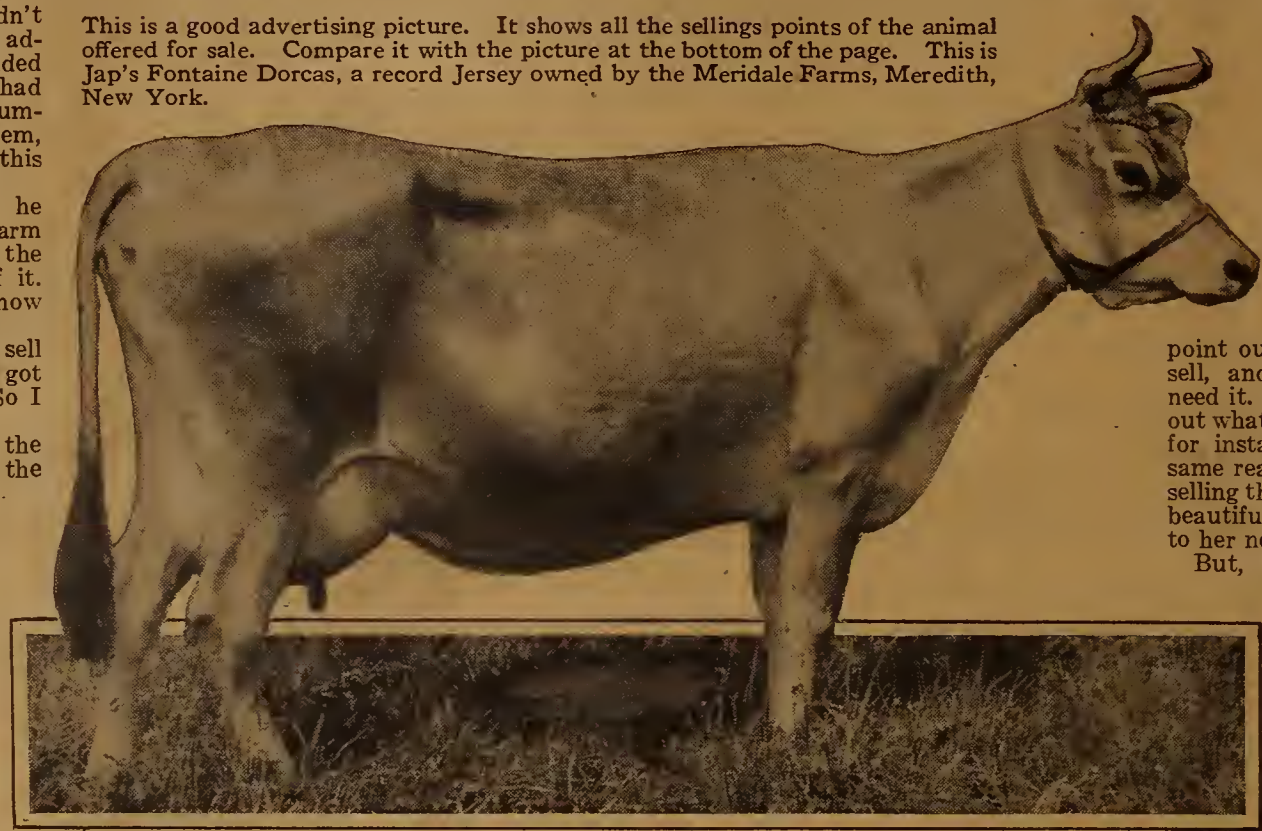
My cows are Jerseys. started them, against the vice of a friend, in a Holst district. I realized that alm everybody knew that Je milk was seldom surpassed quality. I advertised "P Jersey Milk," and showed Jersey cream made good coffee—t appealed to the husband; sho how Jersey cream was splendid whipping—that appealed to t wife; showed why Jersey milk a butter, combined with lots of f air, made healthy, happy childre that appealed to the mother a father. My milk route wasn't largest in the city then. But it m the greatest profits, and my milk never lost me a customer.

In selling pork I advertised t things—the "Real Old-Fashio Kind" and "Buy Direct—Cut O Unnecessary Costs." In selling ples and butter and eggs I follo the same policy. Thus my adver ing based its appeal entirely u superior products at an honest pr honest because I took advantage the parcel post and cut out the m dleman. The consumer is always trustful of a distributor, no ma how honest he is, and is glad eliminate him.

IN WRITING advertisements, f find out the selling points of yo product. Then discover what ap will bring home these points m forcibly. In the advertisement b out the selling points conspicuou and fill in with the appeal. Fig. shows the selling points blocked o in an advertisement that sold all my pork at a good profit one y Fig. 2 shows the appeal written i (See page 22)

After I had worked out this ad took it to the newspaper office. T advertising manager there hel me to decide what size type sho be used. Having figured the sell worth of my pork as $360, I fou that I could afford to buy $10. worth of [CONTINUED ON PAGE 2

This is a good advertising picture. It shows all the sellings points of the animal offered for sale. Compare it with the picture at the bottom of the page. This is Jap's Fontaine Dorcas, a record Jersey owned by the Meridale Farms, Meredith, New York.



When You Advertise, Here Are Three Points to Remember

ROBERT L. VOORHEES, the author of this article, is the son of Edward B. Voorhees, for many years director of the New Jersey Experiment Station. About ten years ago Robert Voorhees began his first advertising for Raritan Valley Farm, and the story related here is the result of his experience since then in advertising farm products. Mr. Voorhees mentions three points you should remember in farm advertising which are given below:

1. Be thorough.

If you are going to advertise at all, do it thoroughly. A farm can never get too much desirable publicity. First, make your farm and farm instruments look clean. One can't advertise cattle for sale, and when buyers come show the cattle standing in a dirty barn with filth up to their knees, and expect to sell them. Have your place kept up well, and choose a nice name for it. Paint this name and what it stands for on your farm wagons. At the entrance to your farm, or along the high road, set up a good-looking sign advertising your farm and telling what you have to sell. These things can be done in spare moments. Then get a neat-appearing letterhead and a typewriter. These will mean an expense, but they are worth while.

Having gone thus far, a firm foundation is laid for building up sales.

2. Expand methodically.

When you have something to dispose of, calculate what the sales should amount to, and spend three cents for every dollar of it in advertising. In your advertisements emphasize the selling points and get the right appeal. Place your ads correctly. For instance, if you have cattle to sell, place your ad in your breed paper or in a farm paper having a large circulation among cattle breeders. If you wish to sell apples, put your ad in the paper that reaches the *nearest* consumers. Keep records of results so that you can concentrate on the product that sells easiest and most profitably.

3. Grasp Opportunities.

If anything of news interest happens on your farm, send it to your local paper. Pictures are great interest getters. Exhibition of products at fairs is a fine advertisement. Neat containers for butter, eggs, apples, etc., mean a great deal in building up good-will. An energetic interest in agricultural activities marks you as a man worth listening to while you advertise your farm and your products.

Don't wait for buyers to come. Go and get them before the other fellow does.

A pretty picture, but it has no value in advertising. It shows none of the selling points of the animals presented

What Regulated Branding Has Done for Western Cattlemen

By F. Wilcox of Montrose, Colorado

GONE forever are those days of the wild and woolly West when range wars, cattle disputes, and raids by organized "rustlers" were taken for granted. No longer is each man policeman of his own ranch, for out of the rapid growth of the great West has sprung a system which protects the rancher and his cattle.

Rocking Chair

This system is nothing more nor less than the regulating of a distinctively Western custom—the branding of livestock. In the early days of the Western cattle industry branding was haphazard. Brands were often duplicated by different ranchers, and disputes arose. Dishonest men used markings so similar to those of their neighbors that with a little skill they could change their neighbors' brands to conform with their own. The result was costly disputes, many with tragic endings.

Texas was the first State to regulate branding. Now every State in the Western stock-growing section has its own branding laws. These differ in many ways, but the underlying principle is the same, all insisting that each individual brand be registered. Some States allow a certain brand to a rancher, and he may place it on his stock in any position. Other States allow different men to have the same brand, but the owners of this brand must place it on their stock in distinctive positions.

Flying V

Each brand is good for ten positions, according to the laws of North Dakota. They are the jaw, neck, shoulder, ribs, and hip—five positions to each side of the animal. It is not uncommon for a stockman in that State to buy all positions, so that he may brand his stock as he pleases; otherwise, nine other men might be permitted to use his brand in other positions, and confusion might arise. Colorado laws are different. In that State the same brand may be used by but one person. In such ways do the different state laws differ in their branding regulations.

As a further protection, the different States have men whose duties are to inspect the brands on stock being shipped. At the stockyards in cities like Chicago, Kansas City, Omaha, and St. Louis other inspectors are maintained who check up the brands on the animals as they arrive. If there is any doubt as to whether an animal belongs with a shipment, a report is made to the state headquarters, the owner of the doubtful animal is found, and the money for its sale is turned over to him.

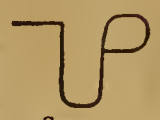
Lazy Diamond

Through this system, rustling, or stock-thieving, is made almost impossible. Disputes seldom occur, as no one in any locality is permitted to have a marking too much like his neighbors.

It is almost inconceivable the number and variety of brands that are used. For instance, the State of Montana has recorded 85,000 brands since 1878, 60,000 of which are in active use to-day. Nearly any kind of practical design or combination of letters and numbers is found in the record office, and a person trying to originate a brand has quite a job on his hands to get something different.

Take the Colorado brand book and start in with the first page of A, and one will find all kinds of A's in all positions and in all combinations with other letters, figures, and signs. One soon discovers that about all the usable brands have been sold.

Most letters are capable of being used in various positions, as the normal or perpendicular A; the horizontal or "lazy" ⊳; and the inverted ∀. There is another theoretical position, known as the "tumbling" A, which, however, is not used much. A letter or figure with flourishes or wings is called a "flying" letter. Some letters are capable of the reverse position as Ɥ, and there are hundred of combinations with bars, half and quarter circles, etc.


Seven-up

The picture or hieroglyphic brands are interesting, and include about anything that can be burned into an animal's hide with an iron. In the Colorado brand book is noticed a skull and crossbones brand. There are the rake, shovel, shoe, boot, cup, coffee-pot, glasses, flag, keys, apple, star, moon, ladder, tree, anchor, pitchfork, glove, mule shoe, rocking chair, hatchet, ax, spear, rolling pin, gate, spectacle, pipe, fish, gun, compass, umbrella, hands, and thousands of queer characters that are unnamable.

Now, as to the way this system helps the rancher: Supposing a Colorado rancher ships a carload of cattle branded 44 to Kansas City. The inspector finds in the lot an animal brand J I C. The money for this stray animal goes to the state board of stock inspection commissioners in Denver, who hunt up the owner of the J I C brand and send him the money.

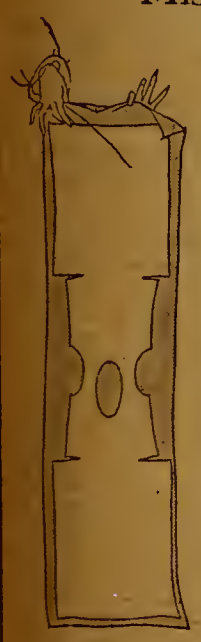
There must be care, in allotting brands, not to issue two brands, in the same locality, which are so similar that they may be "worked over." Among the 4 combinations in the Colorado brand book we find the brand 444 and also 4444. Now, if cattle wearing these two brands grazed in the same locality, there might be danger, if the 44 owner were so inclined, to simply add another 4 to 444 cattle. Or it would be an easy matter for cattle branded M to be changed to M M, by adding another M. But if one brand is used in one side of the State and the other in the opposite side, no danger will result.

The brand 101 is said to have been burned into the hides of more animals than any other. It is the brand of a big Southwestern outfit that ran cattle in the early

[CONTINUED ON PAGE 19]

Fashions That Are New

Miss Gould likes the sleeveless dress. She says: "Wear your old blouses with it"



THE simpler your new gowns, the smarter they will be this fall. The silhouette still keeps straight and slim for everyday clothes. Its only change is that it is longer. Of course, there are new details, and these make the frock look different. When it comes to evening dresses, especially for the younger women, the bouffant effect is introduced. These dresses show the straight basque with boat neck, and full-flared skirt. In all the dresses, skirts are longer and sleeves, generally speaking are much wider.

Nothing illustrates better the vogue for simplicity in dress than the sleeveless gown with its simple air and smart lines. It didn't wear out its welcome this summer. Not a bit of it! It is here this fall, and looking its best. You see it in the new twills, such as piquetwill and twill cord, in the lustrous duvetyns and the silky velveteens. Sometimes you wear it with a long-sleeved satin guimpe; and then again with one of your summer blouses freshened up a bit. My idea of a chic sleeveless dress is shown here.

A fine way to get a little more service out of your summer blouses is to wear them with a sleeveless dress. Perhaps you have a blouse, say of cotton voile, with a becoming lace-trimmed collar, and perhaps its only worn part is in the sleeves. Here is a suggestion for making your sleeves as good as new: If the lower part of the sleeve or the cuff is worn, cut it off and add a straight band of cuff. To this sew a turn-back cuff of the voile, if you can match it, or of white silk, and edge with a little lace frill. Sew the turn-back to the lower edge of the band cuff. For early fall days you might like to have the blouse with three-quarter-length sleeves. If so, cut it off elbow-length, and finish with either a circular or gathered flounce about five inches deep.

A net guimpe reaching to the waistline, to which long satin sleeves are attached, is a most useful dress accessory if you are planning to have a number of sleeveless dresses. Make the sleeves one piece, dart-fitted in the back, and have different vestees to snap on. It's wise to have one of satin matching sleeves in color. Another may be cream net trimmed with little ribbon frills, and still another of eyelet embroidery in the smart ochre shade.

Trimmings are not as bright as they were last fall. Much ribbon is used and the ciré ribbon, which has the shine of patent leather, is considered very smart. Many dresses are trimmed with bands of this ribbon in place of straps of cloth. Braid is also used. A good-looking trimming to use at the bottom of a skirt is made of disks of very narrow braid finished with an outline of French knots. To make this braid disk trimming, it is wise to mark a circle on the fabric before you start. In this way you are sure to keep the disk just the size you want. In sewing on the braid, start from the outside and work to the center. Then sew through and through the center of each strand. The French knots may be done in heavy rope-size silk floss or in mercerized embroidery cotton. To get the smartest effect, use black braid, and have your bright color note only in the French knots.

If you like the one-piece dresses, and want to make one yourself that is easy to cut and hasn't a lot of intricate pieces in the pattern, let me recommend the little gown shown above. It is pattern No. FF-4083—Sleeveless Dress with Guimpe. Sizes, 16 to 18 years and 36 to 40 inch bust. Price, thirty cents. Order from Pattern Department, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

To change the effect of your sleeveless dress, you can wear it with different girdles, guimpes, and blouses. If your dress is dark, one of the new link girdles in some bright shade would add an attractive color note. These girdles come in celluloid, and are often in two colors—red and blue is a favorite combination, also black and white, cerise and purple. Heavy silk cords are also used for girdles. These are knotted at the side and finished with long fringed tassels. Narrow girdles of the same fabric as the dress are equally smart. Let me tell you how to make them: In measuring your material, cut it twice the width you want it when finished, plus the seams. Fold it lengthwise through the center, bringing the two right sides of the material together. Stitch the length of the belt a seam's width back from the raw edge. This makes a belt which looks like a tube. Your belt, of course, is now wrong side out. To turn it, pin to one end a large safety pin, and then use this as you would a bodkin. To finish the ends, turn in the raw edges of the belt and slip-stitch.

Inquiries promptly answered.

"Why I Believe in Feeding More Silage"

By R. A. Ward

A Banker and Farmer of Bend, Oregon

What farm boy wouldn't be proud to have two Shorthorn calves as pretty as these for his playmates? These promising young farm products live on the farm of Wayne Forrest, Tab, Indiana

FOR years King Corn has been considered our standard feed for steers, especially when fed with clover hay. But old ideas frequently get rude shocks in these modern days, and we will soon cease to marvel at the new or unusual. Come now the steer-feeding experiments conducted at Iowa, Nebraska, Purdue, Wisconsin, and Oregon, which show us that for economical gains (and that's what every poor cattle feeder is after these days of eight-cent steers) a ration composed largely of silage is the cheapest and best.

When will we be through learning the virtues of this most excellent feed? We used to consider it of value chiefly for the dairy cow; steer feeders scoffed at the idea of making prime beef from the canned forage. One feeder of considerable experience told us that silage-fed beef was soft, and that in going through the coolers one could pick out silage-fed beef by sticking a finger into the carcass. If it was like so much stiff putty and the hole remained, it was surely silage-fed beef. That was only a few years ago, too. We are now convinced that it was the head of this feeder rather than the silage-fed carcass which was soft.

IT IS probable that the day will come when the markets will pay such a premium for grain-fed beef that corn will again become the peer of fattening rations. Then, too, when corn gets as cheap as it now appears it might, silage may have some difficulty in holding its own. But these conditions do not prevail now, as the sadly depleted bank accounts of many grain feeders testify.

But we *can* make a profit on our silage-feeding operations while grain-fed cattle show losses. Middle Western folks who have long felt that the world revolved around a corncob have been more surprised at the results they have obtained recently with silage than feeders of the Northwest, who have long been accustomed to making palatable feeds out of plants which are regarded as weeds in the Corn Belt. Sunflowers and Russian thistle silage have saved many Montana and Oregon cattle from going hungry during the winter months. Not that Northwestern feeders do not appreciate the value of corn, but because high prices have prevented their feeding the golden grain during recent years.

BUT consider a few of the results obtained with silage before accepting my word as to the superiority of silage as a cattle feed:

During a 120-day feeding period at the Iowa station, 1,000-pound steers made a daily gain of 2.74 pounds on a ration of 52 pounds corn silage, 3 pounds oil meal, and 1.5 pounds hay, or 100 pounds gain at the cost of $16, while on a full-corn ration, with a little silage, the daily gain was 2.98 pounds, and the cost of 100 pounds gain $22.60.

At Kansas a ration of 60 pounds corn silage, 2.5 pounds oil meal, and 2.95 pounds hay produced a daily gain of 3.09 pounds at a cost of $12.07 per 100 pounds gain. At the same station a full-corn ration of 15 pounds per day, and no silage, made a gain of 3.23 pounds at a cost of $22.23 per 100 pounds gain—a difference of $9.96 in favor of the silage ration. This lot of corn-fed steers would have had to sell at $18.77 to break even; they actually brought on the market $15.75.

At Nebraska, steers fed a ration of 52 pounds silage, 3 pounds oil meal, and 2 pounds hay made a daily gain of 2.20 pounds, and cost $18.26 per 100 pounds gain. They would have had to sell at $13.13 to break even, but they actually sold for $13.50. The comparative lot in the same experiment fed 16.56 pounds shelled corn and 11.51 pounds clover hay, with no silage, made a daily gain of 2.56 pounds. It cost just $23.81 to make 100 pounds gain on this ration, and the steers sold for $14.50.

SIMILAR experiments have been carried on at Purdue, Indiana, during 1916, 1917, 1918, and 1919, and the results have been so similar that we will give only the results for the last two years. These Indiana steers were fed 54 pounds corn silage, 4 pounds hay, and 2.8 pounds oil meal. They made a daily gain of 1.66 pounds at a cost of $19.88 per 100 pounds gain. These steers would have had to sell at $11.70 to break even, and they sold for $14.55. The Indiana corn-fed steers, on a ration of 16 pounds corn and 14 pounds of hay per day, made a daily gain of 2.16 pounds. The cost per 100 pounds gain was $21.77. They would have had to sell at $11.18 to break even, and they actually sold for $11.75.

Other numerous experiments on the feeding of silage to fattening cattle could be quoted, but it seems unnecessary. Y may look them up yourself if you w further proof.

There is another distinct advantage feeding silage which experience in the f lot has shown. Cattle on heavy grain fe go off feed fairly easily and require c watching. Silage-fed cattle are ne troubled with this difficulty, and as a re silage-feeding can be much more success ly done by beginners than grain-feeding

IT IS true that silage-fed steers sh slightly more on the way to market those fed a full-grain ration. At Ka the cattle fed a full-corn ration, and silage, shrunk 3.18 per cent; those fed c and silage, 3.11 per cent; those fed s and no corn, 5.40 per cent.

In the Northwest, silage-fed cattle topped the market in competition with grain-feds. In many instances silage steers have realized as much as grai cattle at our large central markets. T has been particularly true during the l two years. What the situation will be w lots of low-priced corn available is a ma of conjecture. In any event, silage a fattening ration is here to stay. It's cheap feed; it makes good gains; it ke cattle in a thrifty condition; and it m money for us in days of high-priced fe In the Northwest the silo enables us utilize crops that would otherwise be a to loss. These weed silages are not so good corn and sunflowers, but they do mak fair feed.

We feel like saying, "Hats off to the s the savings bank of agriculture!"

Have You an Unsettled War Claim?

If so, perhaps we can help you

THERE is a liberal compensation allowance for a dependent wife or parent of a man who made the supreme sacrifice in the late war. I am wondering how many of these dependents have filed claims for this compensation, and am willing to assist them properly to place their claims.

During the past few months we have filed hundreds of claims for people who did not know what they were entitled to. If you think you have something coming to you, tell us, and perhaps we can help you.

This column is devoted not to ex-service men alone, but also to their wives and families. We are glad to be of any service to anyone who needs help. There are many claims for unpaid allotments and undelivered Liberty bonds coming in; all of these should be settled soon. I have just returned from Washington, where I was able to get many of these claims settled. I found things there in good shape to adjust any claims quickly.

Last month we handled quite a number of cases, and every one seemed different. So far most of them have been disposed of. One woman wrote that her son, an ex-service man, was in prison. She wanted an investigation made, and asked the American Legion to assist her. I immediately got in touch with the American Legion in that locality, and an investigation showed that this ex-service man had not only been imprisoned for a crime he did not commit, but, also, that he was suffering from shell shock, and should not have been in prison. The American Legion had this man released, and placed in a proper hospital, where he is getting well.

It is service like the above that we are trying to render through this column. We are in a position to give information to ex-service men and their families, or to refer them to the right place to get it.

In writing, give full details, enclose stamped self-addressed envelope, and address Richard T. Bell, American Legion Column, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

Our Mistake

ON PAGE 7 of the March issue the legend under the picture of Clifford Gettings of Hillsdale, Michigan, stated that he was a breeder of Plymouth Rock chickens. Since the picture shows Mr. Gettings holding a Plymouth Rock in his arm, we naturally supposed such was the case. However, Mr. Gettings writes that he leans to Silver-Laced Wyandottes. We are glad to correct this error. THE EDITOR.

My Visit to One of John Bull's College Farms

By Dr. Charles E. Thorne

WITH his proverbial conservatism, John Bull was slow to realize the necessity for scientific education in agriculture. In 1813 Sir Humphrey Davy published a treatise on agricultural chemistry; Liebig's "Chemistry in Its Relations to Agriculture and Physiology" was translated into English about 1840; and James F. W. Johnston's "Elements of Agricultural Chemistry and Geology" appeared in 1844, the author being then a professor in Durham University.

During more recent years, however, the attention given to this subject has increased, and by 1915 twenty-two colleges in England, Wales, and Scotland were giving instruction in science in its relation to agriculture. One of these is the great University of Cambridge, where a school of agriculture with some three hundred students is organized, with Professor T. S. Wood as dean. This school is furnished with well-equipped chemical, physical, and biological laboratories, and has a farm of about 300 acres, located a mile and a half away.

It was my privilege to visit this farm in company with about one hundred farmers and others, members of a regional agricultural education association, and to be shown around by the superintendent. The farm is very properly devoted largely to the purpose of illustration rather than scientific experiment, although some experimental work is in progress, the wheat-breeding work which Professor Biffin is conducting being a notable example. We found his wheats on several of the farms we visited, and apparently giving a very good account of themselves.

I saw large white swine of the bacon type that would seem to be well worth testing alongside the Tamworths. B white-faced and black-faced sheep w hurdled upon a mixed herbage of Italian grass, sainfoin, and clover, and were evide ly thriving. This method of handling s is quite commonly followed in England order to avoid the lung and stomach wo which are so apt to be troublesome w sheep are kept only on permanent pastu Sheep in England are very largely kept in gions where the plow is most used, a pract the opposite of that prevailing in Amer

THERE were fields of splendid wheat, several varieties, with excellent me ows and pastures, all indicating care management.

The buildings are as yet only those of ordinary English farm, and were v properly felt by the superintendent to altogether inadequate for their purpose. is to be hoped that appreciation of importance of agriculture, which the G War has caused English people to rea more fully than ever before, will resu equipment for this farm worthy of the toric institution with which it is associat

As the real function of a schoo agriculture is instruction, it proper that research w undertaken in such a sch shall lend itself to purposes of illustrati Along this line is calorimeter, which being constructed the Cambridge sch under the super sion of Profe Capstick, which expected to be su ciently accurate f illustrative purpo and yet so much l expensive than t apparatus usua employed as to pla it within reach schools of moderat income.

John Bull may b slow starting, but h usually gets thin done when he do start.

Observe the noisy back-yard cat,
Poetical and all of that;
His songs they give us all the blues,
Whene'er we hear him "woo the mews."

Shrader Made Each Pig Pay Him $7.30

By James R. Wiley

Agricultural Extension Department, Purdue University

ONE hundred pounds of gain from each 294 pounds of feed was the mark set by Charles M. Shrader of Union County, Indiana, in growing his spring pigs last summer, from the time they averaged 35 pounds until they reached 135 pounds. When I asked him how he did it, this is what he said:

"I have learned that I can grow shotes most economically during the summer when I feed two or three pounds of feed for each hundred pounds of liveweight on good clover pasture."

At weaning time, Mr. Shrader was feeding a ration of ear corn, wheat middlings, and ground oats. The last two feeds, in equal portions, were mixed into a thick slop with a limited amount of skim milk. This ration was continued after weaning until the pigs reached an average weight of 45 to 50 pounds, the pigs getting all they would clean up twice a day. When they had reached the above weight, the grain ration was gradually reduced, and approximately equal parts of ear corn, ground oats, ground barley, and wheat middlings were fed from this time until new corn was available.

"I did not weigh the pigs to determine how much to feed them" said Mr. Shrader. "I simply estimated their weight and fed 2½ pounds of feed per 100 pounds of estimated weight. When the pigs weighed approximately 50 pounds apiece, I fed about 1¼ pounds of grain per pig each day. I gradually increased the amount as the pigs got heavier, maintaining the ration of 2½ pounds of feed per 100 pounds of live weight as nearly as possible.

"EXPERIENCE has shown me that I can grow my spring pigs economically by feeding a limited grain ration, provided I have good pasture for them. I like clover pasture much better than blue grass. Blue grass is all right during the spring months, when the growth is green and plentiful, but during the summer months it gets tough and woody. The pigs do not like it, nor does it furnish the protein and minerals that are so abundant in fresh pasture growth. Clover grows during the summer months, furnishing a continuous growth of succulent rich pasture.

"There's no profit in feeding a limited grain ration to pigs during the summer if the pasture is poor in quality, or when there is not enough of it to supply all the forage the pigs will eat. When the pasture is lacking in quality or quantity, I feed a little more grain; when the growth is exceptionally good, I feed a little less."

This method of feeding gave Mr. Shrader exceptionally growthy, well-grown shotes by the time new corn was available, just the kind to make economical gains hogging off corn. When they went to market at seven months of age, they had eaten only 355 pounds of dry feed for each 100 pounds of gain from weaning time on. This gave Mr. Shrader a margin of $877.68 on 83 head, after the cost of feed had been deducted. Taking into account all costs for feed, labor, equipment, etc., from the time the sows were bred in the fall of 1919, until the pigs were sold, the net profit was $606.01, or $7.30 per pig.

With such management he will certainly continue to make money in spite of lower prices.

A Tree Trunk on a Truck is His Home

CHARLES KELLOGG of Santa Clara County, California, has what is probably the most unique home to be found anywhere, and it possesses the additional advantage in that it can be moved around from place to place whenever its owner chooses. In other words, Mr. Kellogg and his wife live in the hollow section of a huge redwood tree, mounted on an automobile chassis—that's why he calls his home a "travel-log."

Down on the Mexican border some time ago Mr. Kellogg was lying on the top of a hill in front of his camp, watching the American troops transporting their supplies overland. Wagonload after wagonload, drawn by mules, went to the mudhole at the foot of the hill, and stuck there in the mire and with great difficulty pulled out. Finally a light truck came along and went through the hole without any trouble.

Here was Mr. Kellogg's tip: He would build a house on one of those trucks and travel through the country in it, for this would enable him to continue his habit of living out of doors. The result was that he bought a truck and took it into the heart of the redwood country of California in search of a suitable body. He remembered the hollow redwood tree in which he had played as a boy, and decided that such a piece of wood was the ideal material.

After a time Mr. Kellogg found his tree, a fallen redwood 360 feet long and 11 feet in diameter. From this he cut a 22-foot section, and after seven months of arduous toil fashioned the huge piece of timber into an automobile body that is a work of art.

Here we see Charles Kellogg, naturalist, of Santa Clara County, California, in his motorized tree house made from a huge redwood tree. In this "travel-log" Mr. Kellogg lives independent of landlords and taxes, for he can easily move whenever he takes the notion

The first step after the section had been cut was to remove the bark. Then the task of hollowing out the trunk was begun. The problem of mounting the trunk on the chassis was solved by cribbing the corners with slabs and digging a passageway beneath it. The truck was then driven under the log and the latter lowered into place.

Mr. Kellogg himself cut the windows and planned the interior, which contains three rooms, each six feet square. They are not ordinary rooms, but are furnished in a luxurious manner throughout. The beds are wonderful creations, with soft mattresses. The toilet appurtenances are exquisite; there are clever little drawers, folding arrangements, and plate-glass windows, and the whole car is lighted with electric light. The finished body is 19 feet long, the whole trunk being one solid block of polished redwood of exquisite grain. The rear door is also a solid block of redwood. The hinges were fashioned by Mr. Kellogg from the rim of a wheel from an old prairie schooner, and the window shades are of yucca bark, stamped in Indian designs.

ROBERT H. MOULTON.

Is Horseless Farming Coming?

By Charles Eggerth

IS THE farm horse doomed?

Most farmers think not. So when I heard of an Iowa farmer who was farming 160 acres without the aid of a single four-legged beast, I decided to hunt him up. I did, and found the trip decidedly worth while.

E. C. Ketcham is an outstanding example of what can be done with modern farm power. He operates his farm wholly without horses. I recently spent a very enjoyable vacation of a week at High View Farm, which is his home. Mr. Ketcham is a college man, having attended Iowa State College at Ames, Iowa. He is ambitious, and has very up-to-date ideas about farming. But he makes his living from his farm—and is therefore not a tractor farmer because of a hobby. He began farming—without horses—before the war in 1918, but left his farm and family to take up arms for his country. Since his machinery and crops were mostly sold when he went into the service, he had to make a fresh start when he again took charge of the farm in 1920.

"If I can read boys aright," he told me, "the coming generation will see a great number of motor-power farmers. However, I would advise anyone not mechanically inclined to stick to horses.

"I use tractors because I can get more work out of them than horses give me. I work long hours during the growing season—often am in the field an hour before my neighbors, and stay there until dusk. Horses would not stand that pace. With my motor cultivator I can plow 25 acres of corn in a day. Alone I have cut 40 acres of grain in a day and a half, pulling an eight-foot binder behind the tractor."

He pointed out a triangular 15-acre field which he said he plowed in just ten hours. He husked his corn last fall by pulling a husker and wagon behind the tractor, but believes that it is better to shred corn at the barn during the winter. He put 10 acres of fodder through a silage cutter last winter, blowing it into the barn. The steers he is feeding eat much of the stover, and the balance makes good bedding.

"I do all of my own repair work on my machines," he continued, "but do not wait until they break down before attending to them. The greatest cause of trouble in motor machines is because many operators do not understand and use the different grades of oil properly. Some farmers are careless about oiling at all.

"My motor cultivator beats horses. It goes any of three different speeds, and keeps up an even gait."

"Will it work in wet soil?" I asked.

"When it is too wet to use my cultivator I wouldn't have anybody in my fields with horses. Then it goes *exactly* where I guide it. On soddy ground or in small corn I go slow, so I don't cover much corn."

I saw some of the corn that Mr. Ketcham grew this year. It was of a mighty good quality. Ten ears of it, selected and shown by a student attending Iowa State College, won a second place in its class in the Student Corn Show. His stalk fields were very free from weeds, in spite of the fact that he got a bad check on his corn this year, and cultivated it all one way.

He does all of his hauling and markets his grain and other produce with a one-ton truck. Here, he said, is where another great saving comes in.

"I timed my man when he was hauling oats to town this fall," he said, "and he made the round trip in forty minutes. My farm is five miles from town.

"Do I have any ideas as to making power machines more perfect?" He repeated my question. "Well, I don't think that the present motor cultivator, for instance, is beyond improvement yet. I have made a few simple devices for my machines and"—with a smile—"have an idea or two which may help that coming generation of power farmers."

MR. KETCHAM believes in purebred livestock, and has some good Chester White hogs. He is starting to build a herd of Polled Hereford cattle.

"I have come to the conclusion," he continued, "that one three-plow tractor, one power cultivator, and a two-ton truck are all the motor machines needed by the average farmer. I want to put special emphasis on the two-ton truck. The one-ton truck I now own does not have sufficient power for hauling loads out of the field. More motor-driven machines than this would be more than necessary, and therefore impractical.

"My ideal," he said, "is to farm without horses, farm more intensively than the average farmer, have a patch of alfalfa or sweet clover and use some lime and fertilizers, raise better livestock, crops, and"—in an undertone with his eyes on the youngster on my lap—"better babies."

Prize Contest Announcement

How I Make More Money Farming with Power—or Horses

FOR some time we considered having two experts write articles giving each side of the horse vs. tractor controversy. But there have been tons of literature printed by both sides, and the question isn't settled yet. It will never be settled by anyone but you men who are in the fields working with them. So we decided to give you horse and motor fans a chance to tell your experiences.

What we want is *your* personal experience, together with the figures showing which paid you best—horses or tractors. This contest is open only to farmers who have tried power farming.

We will pay $10 for the best letter, $7.50 and $5 for the next best, and $2 for all letters that are used. Give full details, but keep your letter to 500 words if possible. Photographs are desirable. The contest closes September 30th.

Enclose stamped self-addressed envelope, and address Contest Editor, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

THE EDITOR.

My Visit to Dr. Charles Mayo's 3,000-Acre Farm

Where the famous physician spends his spare time doctoring the soil

By W. L. Nelson

DOUBTLESS you have heard of the Mayo Brothers—"Doctor Will" and "Doctor Charlie"—and like almost everybody else you know something at least of their wonderful work as surgeons. But did you know that Doctor Charlie is also a farmer, and a rather extensive farmer, at that? Although I have for a good many years been engaged in agricultural work, I knew very little of Dr. Charlie Mayo, farmer, until the same business that has taken hundreds of thousands of others to the little city of Rochester, Minnesota, took me there.

I found that back of the Mayowood Farms is the idea of business. Books are kept, but the figures are not for the public. The busy bookkeepers who are on the job in the unpretentious room in town, where the Mayowood Farms offices are located, know a lot about cost of production and of what is paying and what is losing money. Incidentally, if there is a loss there is pretty sure to be a change in methods. It's an idea of Doctor Charlie that there is a place for science in agriculture, just as there is in surgery. As he sees it, sick folks and sick soils both need treatment. In either case, neglect may lead to loss. So you see why the cornstalks are so big, and the milk production records so high, out at Mayowood Farms.

Mayowood Farms consist of more than 3,000 acres, comprising the place (originally nine farms) where stock-raising and dairying are carried on in the most approved Minnesota fashion. The location is some four miles south and west of the city of Rochester. Between the farm and town there is an elegant all-the-year-round road over which the busy surgeon and farmer, who with clinic and country holdings gets a balanced ration of work, is able to make fast time as he goes by auto from one scene of activity to another.

And what a wonderful road it is! To be fully appreciated it should be traveled over as I traveled it, leisurely on foot, on that beautiful October day when the hard maples on the hills were rich in red and gold, and when here and there in the broad pastures were big beds of purple asters. The sun shone bright and warm as I journeyed, all alone, toward the farm, and now and then I stopped to rest and to "drink in" the beauty of it all.

OUR first stop was at the dairy farm, where a large force of men was engaged in filling the silos, in providing the "grass without flies" which helps to make profitable the big herd of Guernseys and Holsteins. Not all of the cows are registered or even purebred, but there are some very meritorious animals in the herd, as those who have followed the winnings at the dairy shows know. I was unfortunate in not getting to see a number of the best individuals, as they were then on exhibition at the big Waterloo (Iowa) Show.

The dairy barns, scrupulously clean and entirely adequate, impressed me with the fact that Dr. Mayo must have an eye for business. The corn that was going into the silos would have done credit to Illinois, and was entirely unlike the flint corn that Minnesota grew not so many years ago, before the Minnesota College and Agricultural Experiment Station developed corn that was suited to the country. The yield was not less than 60 bushels per acre. In another field a fine crop of hay was being baled. The aim on Mayowood Farms is to produce the bulk of the feed needed. Of course there is much feed that must be bought, such as concentrates and mill feeds.

Milk and other dairy products find ready sale in the city of Rochester, going largely to the hotels, hospitals, and sanitariums. In this way the patients of the Mayo Clinic are assured of the finest poduct. Milk is hauled to Rochester on large trucks, having removable bodies which are immense refrigerators. With proper machinery these are easily lifted on and off the running gears. This arrangement enables the milk to be packed and iced while a truck, with another body, is making the trip to town.

DAIRYING is but one branch of the business conducted at Mayowood Farms. One of the original farms is given over largely to the breeding and feeding of Hereford cattle. Quality is stressed, and the herd easily takes high rank. Near the residence are large greenhouses and gardens in which vegetables and flowers are grown. In the main these departments are to supply the home. However, choice products find their way into the city. On the day of my visit Mayowood Farms strawberries of the Everbearing variety were on sale in Rochester. The poultry farm, in charge of a specialist, is about half a mile from the greenhouses. Here birds for market and strictly fresh eggs are produced in quantity.

Hogs, fattened on city garbage, are fed in large numbers on a farm, which is east of Rochester and several miles from the bulk of the Mayo holdings. This branch of the business, while [CONTINUED ON PAGE 19

Picture by Brown Brothers

Here are the famous Mayo brothers, Drs Charles and William, with their father, William Worral, also a doctor. It is Dr Charles, on the left, who owns and manages the 3,000-acre Mayowood Farm near Rochester, Minnesota

The Gold Hesperidee

By Robert Frost

SQUARE Matthew Hale's young grafted apple tree
Began to blossom at the age of five;
And after having entertained the bee,
And cast its flowers and all the stems but three,
It set itself to keep those three alive;
And downy wax the three began to thrive.

They had just given themselves a little twist
To turn from looking up and being kissed,
To looking down and yet not being sad,
When came Square Hale with let's see what we had,
And two was all he counted (one he missed).
But two for a beginning wasn't bad.

His little Matthew, also five years old,
Was led into the presence of the tree
And raised among the leaves, and duly told
We mustn't touch them yet, but see and see!
And what was green would by and by be gold.
Their name was called the Gold Hesperidee.

As regularly as he went to feed the pig
Or milk the cow, he visited the fruit,
The dew of night and morning on his boot.
Dearer to him than any barnyard brute,
Each swung in danger on its slender twig,
A bubble on a pipe stem blowing big.

Long since they shone as three instead of two;
One more, he thought, to take him safely through.
Three made it certain nothing Fate could do
With codlin' moth or rusty parasite
Could keep him now from proving with a bite
That the name Gold Hesperidee was right.

And so he brought them to the verge of frost.
But one day when the foliage all went swish
With autumn, and the fruit was rudely tossed,
He thought no special goodness could be lost
If he fulfilled at last his summer wish
And saw them picked unbruised and in a dish—

Where they could ripen safely to the eating.
But when he came to look, no apples there,
Under or on the tree, or anywhere.
And the light-natured tree seemed not to care!
'Twas Sunday, and Square Hale was dressed for meeting.
The final summons into church was beating.

Just as he was, without an uttered sound
At those who'd done him such a wrong as that,
Square Matthew Hale took off his Sunday hat,
And ceremoniously laid it on the ground,
And leaping on it with a solemn bound,
Danced slowly on it till he trod it flat.

Then suddenly he saw the thing he did,
And looked around to see if he was seen.
This was the sin that Ahaz was forbid
(The meaning of the passage had been hid):
To look upon the tree when it was green,
And worship apples—what else could it mean?

God saw him dancing in the orchard path,
But mercifully kept the passing crowd
From witnessing the fault of one so proud.
And so the story wasn't told in Gath.
In gratitude for that, Square Matthew vowed
To walk a graver man restrained in wrath.

Robert Frost

Written for Farm and Fireside
© 1921 by The Crowell Publishing Company

come out within the past four or five years, and I think it has been absolutely proven, not only by our ordinary farm methods, but by scientific tests. This theory is that growing a legume crop alongside a non-legume is almost certain to benefit the non-legume. This practice should come into general use in all farming. My brother Joe thought that this principle was right, and wrote, twenty-five years ago, that blue grass in an alfalfa field throve wonderfully, and seemed to be greatly benefited by proximity to the alfalfa. Probably you have noticed the same thing.

What is much more profitable, however, is the growing of soy beans in our cornfields. I have demonstrated to my own satisfaction, time after time, that this pays, and from now on I believe that all of us might be warranted in making this a regular practice, no matter whether we expect to cut the crop for ensilage, as I did in the first place, or intend it for grain alone. I am satisfied that the addition of soy beans will very much more than pay for the seed, even if we waste the entire soy-bean plant. The reason for this is very simple, some of the nodules on the soy-bean plant become available to the corn root, even while both plants are growing vigorously. Thus the little bacteria on the soy beans are drawing their nitrogen from the air and giving it freely to the corn plant, even when the bacteria are apparently working on the roots of the soy bean alone. Of course, you would have to have your ground inoculated with the soy-bean bacteria before this principle would work properly.

My Visit to Dr. Mayo's Farm

[CONTINUED FROM PAGE 14]

kept entirely apart from the other, has proved profitable. The garbage contract with the city insures two desirable ends: a reasonably cheap feed is provided for hogs and the city is kept free of what might otherwise prove a nuisance.

As the visitor travels the highway which divides the Mayowood Farms, he scarcely catches a glimpse of the residence, which, while a show place, seems not to have been built for such. From the highway directly in front one sees only the lodge entrance, the stone-fenced road, and the homes of some of the employees. If he is fortunate enough to be invited to come in he will behold a home of rare beauty. On Long Island and up the Hudson are many such homes but in the agricultural regions of the Central West there are very, very few. Surely hundreds of thousands of dollars must have gone into the building of this home which nestles as quietly among the hills as does a humble cabin in the Ozark Mountains. As far as possible, the natural setting of the place has been left undisturbed. Every modern convenience is provided. A stream of fine water supplies power; but, in order that there might be no shortage, other power is provided for. A lake of considerable size, a stream crossed by artistic bridges, wooded hills, and wide meadowlands all add to the beauty of the scene.

Regulated Branding

[CONTINUED FROM PAGE 11]

days in several of the Southwestern States. Brands belonging to a big outfit come to be worth thousands of dollars. They not only stand for the outfit's property, but also come to be known as tokens of success and square-dealing, evidences of all that is respected on the range.

Aside from chapters in Western tales and scenes in Wild West movies, there is to-day mighty little working over of brands. An animal turned out on the range with any one of the thousands of brands that are registered is comparatively safe so far as inherent property rights are concerned. Of course, the animal may die from disease, from poisoned weed, or from predatory wild animals. But if the animal survives, no matter where it strays, it is practically sure to be returned to its owner, or the money from its sale will reach the owner. For in every range community, in December, are appointed "stray days," when the cowboys bring in to town all strays, and each man gets back his missing cattle. By the system of brand inspections at shipping points and unloading stations, it is almost impossible to get out of any State with stolen cattle.

The city is a place where people must dwell; the country a place where people may live.

Running Farms and Running Railroads

I
The Farm Under Private Ownership

Back in January, 1917, there was a farmer who had a GOOD FARM, which was worth $20,000. He had good horses and live stock, with fences, buildings, wagons, plows and other implements in GOOD REPAIR.

In the three previous years the farmer had made a LIVING on this farm, and after all expenses were paid found that he had made a PROFIT of a little over a thousand dollars a year—a little over 5 per cent on the VALUE of his farm.

He had applied SUFFICIENT FERTILIZER each year, and his land was in good condition for FUTURE PRODUCTION.

II
The Farm Under Government Control

But, because it was necessary to help win the war, the GOVERNMENT TOOK POSSESSION of this farm, held it for 26 months and promised to pay the farmer A RENTAL equal to what he had made in the three previous years.

[The Government DOUBLED the wages of the farm hands and SHORTENED their working hours.
It established working conditions under which it took MANY MORE MEN to do the SAME WORK, and under which, oftentimes, men were paid for work NOT DONE.]

But the Government DID NOT put on the farm the amount of fertilizer necessary. It let the fences get into BAD REPAIR; the roofs of some of the buildings leaked. The farm implements fell into bad repair. Nor did the Government REPLACE all the tools that were worn out.

The Government promised to PAY FOR THE DAMAGES, but up to date the farmer hasn't got all of his money, though he needs it badly to KEEP GOING.

III
Back to Private Ownership Again

At the end of the 26 months the Government turned the farm back to its owner.

All the farmer's tools and wagons had been put indiscriminately in a pool and used on one farm or another regardless of ownership. Naturally no one had taken as good care of them as the farmer would have taken of his own implements.

At the same time the Government required the farmer to CONTINUE WAR-TIME WAGES and working conditions.

It would not permit him to decrease wages nor to require a better day's work without exhaustive hearings before a Government board.

The prices of his farm products had increased somewhat, but NOT NEARLY ENOUGH to cover increased wages and the increases in the cost of all his supplies—so that in 1920 he made just $62 net profit on the farm which before the war was good for $1,000 net profit.

At the same time the demand for his products began to FALL, and for some of them there was hardly a market at any price. Then many people began to tell the farmer that he could make money if he would REDUCE the prices of all his products, although on account of high wages he was already selling some of his stuff without profit, and even BELOW COST.

IV
Parallel Case of the Railroads

This farm is IMAGINARY, But compare item by item and you have a true picture of the railroad situation.

Although the railroads could not earn their operating expenses and taxes in January and February, it was July 1st of this year before they could get any relief from high wages. And then there was deducted from their payroll only $375,000,000—say ONE-SIXTH—of the increase of the past four years.

Association of Railway Executives

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Those desiring further information on the railroad situation can secure it by addressing the offices of the Association

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See our tractor dealer for full information on deliveries and terms.

International 8-16
$900
This price is about one-fourth less than the price at which the 8-16 sold prior to March of this year. The new figure is the lowest at which it has ever sold. The new price includes all the necessary equipment—platform, fenders, governor, belt pulley.

Titan 10-20
$900
This is the lowest price ever quoted on the Titan, considering the equipment now included (formerly sold extra). Up to March of this year the price was $1,200—today it is $900. At this figure the Titan 3-plow tractor is the best value in the farm power field.

International 15-30
$1,750
At $1,750 this tractor is reduced to a figure lower than has ever been offered before. The man who needs a 4-plow tractor cannot find a better investment than the 15-30 at this price.

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Picture by courtesy of the U. S. Dept. of Agriculture

"Well, what do you want?"

Jed Carter

[CONTINUED FROM PAGE 6]

telegram, which happened to arrive o evening when he and I were in the p office.

George died this morning, coming ho
DORA.

Uncle Dave crumpled the yellow sh that carries so much of pain and joy, a seemed to be looking at something a tho sand miles away.

"I wonder how anyone can ever l faith in life," he said. "What queer, roun about ways it takes."

More than a little puzzled, I asked h what he meant.

"Didn't you know that Jed Carter we to the city about a week before that s geon came?" he demanded. "Didn't I t you he had mortgaged his place for a th sand dollars? Can't you see Provide helping Cupid straighten out a tangle for real man in all this?"

Of course I could after I'd got throu gasping and marveling. How little wo the keenest observer have suspected t close, silent man of such a sacrifice! H toil freely given to another who h stepped between him and his happin for the sake of the woman who would have him.

By littles the story leaked out, a when, a year later, Jed and Dora were m ried, I don't believe that Bay Port e dressed up and forgot its work for a d and had a better time. Such a wealth presents was never before showered on happier pair.

Just before Uncle Dave got into his to drive them to the station he turned me and said:

"You go out to Jed's place, John, a take down that name over the gate. P up the one you'll find in my granary. I 'Sunshine,' not 'Shadow Dell.'"

The $50,000,000 Loan

[CONTINUED FROM PAGE 5]

service—to provide greatly needed aid those of you who are up against a seri financial problem. Under the existing c cumstances a brokerage commission wo be out of keeping with the spirit in wh the money has been so promptly raised.

I wish to emphasize that in making loa from the $50,000,000 provided, first cons eration in all cases will be given to catt men who need the loans to maintain th breeding herds.

Why We Got This Statemen

[CONTINUED FROM PAGE 5]

the cattle business. As a young man j out of college, he and another companio went on a sailing trip which took them t the Gulf of Mexico. There, on the Tex coast, his boat was wrecked, and the t young men decided to return by prai schooner across Texas. Against the advi

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Overland automobile, 3 horses, 3 cows, flock poultry, vehicles, tools, lumber, etc., thrown in; edge hustling R. R. town, broad fields, rich loam tillage, 10-cow wire-fenced pasture; woodland; fruit; good 8-room house, bountiful shade, glorious view overlooking beautiful river which borders farm for ¼ mile; 2 fine barns, poultry house, garage, etc. Owner retiring, sacrifice $2600, easy terms. Details page 28 Illus. Catalog 1100 Bargains FREE. STROUT FARM AGENCY, 150 DP Nassau St., New York City.

What 15 Cts Will bring You From the Nation's Capital

The little matter of 15c will bring you the Pathfinder thirteen weeks on trial. The Pathfinder is a cheerful illustrated weekly, published at the Nation's center, for people everywhere; an independent home paper that tells the story of the world's news in an interesting, understandable way. Now in its 29th year. This splendid National weekly supplies a long-felt want; it costs but $1 a year. If you want to know what is going on in the world, this is your means. If you want a paper in your home which is reliable and wholesome; if you would appreciate a paper which puts everything clearly, strongly, briefly, entertainingly—here it is. Splendid serial and short stories and miscellany. The Question Box Answers YOUR questions and is a mine of information. Send 15c to show that you might like such a paper, and we will send the Pathfinder on probation 13 weeks. The 15c does not repay us, but we are glad to invest in new friends.

The Pathfinder, 228 Langdon Sta., Washington, D.C.

of all the residents in the little town from which they started, they set off through hostile Indian country, and after many hardships arrived safely at their destination.

It was while on this overland trip that Mr. Swenson became convinced of the great possibilities in cattle-raising, and when he returned East he induced his father to loan him sufficient money to begin ranch operations in the Lone Star State. From a small beginning this business has grown until it comprises all of the S M S holdings, which include five very large ranches in Texas. The S M S outfit is one of the largest, if not the largest, in the United States.

Mr. Swenson, acting for his father, built the Aransas Pass Railroad, and in 1882 began the fencing and development of the S M S Ranch.

A number of years ago Mr. Swenson obtained the services of Frank S. Hastings, and Mr. Hastings has developed one of the best herds of Hereford cattle in America. The sweepstakes champions at the International Livestock Show in 1918 were bred by Swenson Brothers on their S M S Ranch.

ONE of the most interesting characters on the S M S Ranch was old "Mage," the cow-puncher who was mentioned in Frank S. Hastings' race story, "Old Granpa," which appeared in the February issue of FARM AND FIRESIDE. Mr. Swenson says he first knew Mage as a Swedish lad of ten or twelve years of age. At that time he tried to induce Mage to go to school during the winter-time, but Mage was so thoroughly wrapped up in horses and cattle work that he could not bring sufficient pressure to bear to put him in school. Mage became one of the very best cowboys in Texas, and his love for horses, particularly Old Granpa, was proverbial.

Mr. Swenson stated that during the winter they always roughed all of the horses through, as it was such a long haul to bring corn in by wagons. While all of the other horses of the ranch became thin and shaggy, Old Granpa remained as fat and sleek as a butter ball. Mr. Swenson often pondered over the matter, but could never find the answer. One day after Old Granpa had died, when Mr. Swenson was talking to Mage, he asked him to tell how it happened that Old Granpa was in such a splendid condition. Mage said:

"Well, now that Old Granpa is dead I suppose I might as well tell you the truth. At midnight every night during the winter I used to get up and slip out to the corn-crib and steal corn for Old Granpa. That was the only stealin' I ever done, and I think it was in a good cause."

Mr. Swenson told of another interesting incident that occurred in the early days in Texas. At that time everyone believed that, if the sod were turned under, the land would never be fit to raise anything else. Of course all the ranch was in grass, and there were no fences. At one part of the ranch lived a man who had brought in a plow from the North, and as there was no shed to place it in he left it out in the open until he would be ready to use it the next spring. One night, while stopping at this shack, Mr. Swenson noticed a lone cowboy loping along on his horse. He stopped suddenly and walked his horse up to the plow. Several times he circled it, looking at it with amazement. Finally he muttered to himself: "Well, what is the damn thing anyhow?" It was the first plow the cow boy had ever seen.

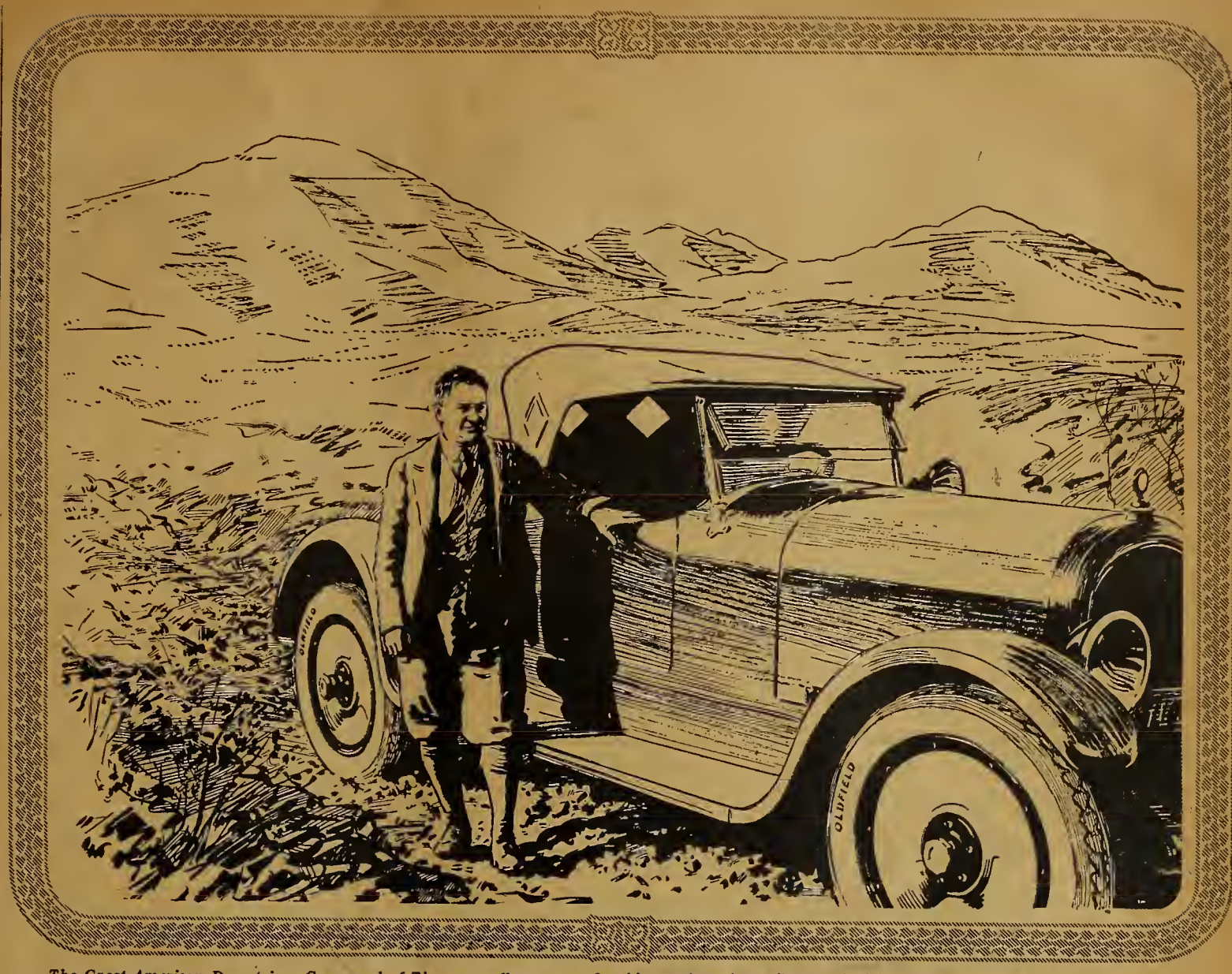
WHEN we asked Mr. Swenson for a photograph to accompany this article, he said he thought it better to leave the picture part of it to the reader's imagination. He told the story of how he had once destroyed the illusion of a cattleman in Texas (whom he had never seen), to whom he had loaned some money. While standing on a corner in Stamford, Texas, one day, talking to one of the county judges, this cattleman joined the party. The judge introduced Mr. Swenson and the newcomer asked:

"Which Swenson are you?"

When Mr. Swenson replied that he was E. P., the man exclaimed:

"Good Lord! What a disappointment you are! I expected to see a great big man with black hair, flashing eyes, and well built throughout." With his arms he made motions that described a large barrel.

A writer in a recent issue of "The Breeders Gazette" said: "Mr. Swenson has always been a builder. He keeps in touch with the details of anything to which he gives his name, visiting all interests frequently. But he loves, best of all, to go over the great ranches, and abandons himself to the big outdoors with all the fervor of a boy let out of school." T. W. Y.



The Great American Desert is a Graveyard of Tires as well as men. On this rough, rocky trail, near the Mexican Border—where it is at its worst—Barney Oldfield finds an admirable proving ground for Oldfield Tires—Photo April 14, 1921

DURING the last twelve months I've tested Oldfield Tires on the roads of 31 states, crossing the continent twice and taking mud, mountains and macadam as they came.

So I know these tires—know them, I believe, as no other tire builder knows his product.

When I tell you, therefore, that Oldfield treads are tough and enduring beyond any kind of comparison, I'm giving you a fact out of my own experience for, on my eastward trip from California this spring, I took the seldom-traveled Southern Route, driving more than 1,000 miles over trails of which the picture above is a fair sample. And I did it *without even a puncture!*

Treads like these mean More Mileage for you. And you can duplicate my tires from the stock of any Oldfield Merchant.

So here's a good tip from one tire user to another: Standardize on Oldfields from now on. You know me,

Barney Oldfield

BARNEY OLDFIELD TIRES

THE OLDFIELD TIRE CO., AKRON, OHIO.

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Pyrex is used everywhere for baking purposes. Pyrex does not chip, discolor, nor wear out. Genuine Pyrex is guaranteed against breakage from oven heat. Any Pyrex dealer is authorized to replace any piece of Pyrex that breaks in actual use in the oven.

Pyrex is the original transparent ovenware. Always look for the Pyrex label—and the name Pyrex stamped on each piece.

You don't have to go to the city for Pyrex. Your own storekeeper has Pyrex or can get it for you.

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AND JOIN DAN BOONE'S RIFLE CLUB

LEARN to shoot like Dan Boone and win handsome bronze medals—Marksman, Sharpshooter, and Expert Rifleman. No payments or dues. Send for free booklet about our plan and how to earn the rifle. Write to-day to

2,000 MEMBERS NOW

DAVID BLAIR, Nat'l Sec'y
Department R44 Springfield, Ohio

Pigs and Printer's Ink

[CONTINUED FROM PAGE 10]

advertising space. Pork sausage was then selling at 30 cents a pound.

Having 1,200 pounds of pork, I figured that about three appearances of the ad would sell it, 400 pounds to each ad. So I had $3.60 to spend on one appearance. As space was 20 cents an inch, I had 18 inches for the ad. So I bought a 6x3-inch space in the upper right hand corner of the page. I did this because I had learned that a space the nearest to five by three inches is the most pleasing to the eye, and the upper right-hand corner of the page is the first place looked at when the page is turned.

The three appearances of the ad "Real Old-Fashioned Sausage" not only sold all of my pork, but I could have sold twice as much more. People wanted it.

I keep all the names of my customers and those whom I cannot supply. They get first chance when I next get up something good. I also keep all the names and addresses that I can collect of the influential citizens of the city. When I have something I want to dispose of steadily (letters cost too much to advertise one lot), I write them sales letters. This method has helped me to bring my milk, butter, and egg market up to the most profitable point.

Real Old fashioned Sausage

Raritan Valley Farm

30 cents a pound

Raritan Valley Farm
Raritan Valley, N.Y.

Fig. 1
I first blocked out all the points I wanted to make

I make my letters cheerful, to the point, and *easy* to read. The farmer who writes with pen and ink, trying to sell something, is, in my opinion, wasting time. I know. My hands are so horny and calloused from plowing and working the farm that I can hardly read my own name when I write it. Every farmer who wants to be businesslike and prosperous should have a typewriter. I have an old standard make that I bought eight years ago, and it is going good yet.

It is my absolute knowledge that advertising pays. If a farmer has the desire to get absolutely the best results from his farm, my advice is—advertise.

A Banker Who Kept a Cow

THIS is the story of a Wisconsin banker named Jost, who was not satisfied with merely telling farmers how they should farm better, and with lending them money to do it with. Believing that many of his farmer customers were not getting as much money out of dairying as they should, he decided to set an example for them. The results he got surprised him as much as it did the farmers.

Mr. Jost is cashier of a bank in New London, Wisconsin. He bought a grade Guernsey cow, which he named Cherry, and installed on a town lot because he had no farm. So he had to buy all her feed and roughage, and even bedding. But he made a success of his dairy-farming, though farmless, and, being a bank cashier and used to figures, made a second success on top of that—a complete record of everything that Cherry ate, slept on, and yielded. Farmers round about had a good deal of fun at his expense for a while, but one year later they were coming to get the banker's cost figures. They wanted to know how he did it. There was such a demand for these figures that he printed them in a little pamphlet, and they are reprinted in "The Banker-Farmer."

Cherry made a profit of $117.83 her first year, allowing $10 fertilizer value from manure. Everything that she ate was weighed and charged against her. Her diet was varied—over two tons of mixed clover and hay, with two tons more of beets, rutabagas, cull potatoes, cull cabbage, cornstalks, wheat bran, hominy, ground oats, ground barley, cornmeal, oilmeal, and three different kinds of mixed feeds, along with stock conditioner, salt, and five and a half months on rented pasture. Her milk was weighed daily, tested for butterfat, and the milk and butterfat used in Mr. Jost's family credited to her account, at the price paid by local creameries.

The bank cashier had a regular schedule for feeding and milking Cherry, worked out by the clock. It took from quarter past six to seven in the morning to milk and feed her, a few minutes at noon to feed and water her again, and from quarter past six to seven in the evening for milking, feeding and bedding.

Her ground feed was balanced on her milk yield—for every three pounds of milk Cherry produced her owner fed her one pound of ground feed for the first nine months, then one pound to every two pounds of milk the next two months, and a pound to every pound and a half the last month. She produced 10,670 pounds of milk during the year, equalling 461.33 pounds of butter, or 576.76 pounds of butterfat, or 5,062 quarts of milk.

JAMES H. COLLINS.

The rube farmer of ten years ago had to shave off his whiskers the other day because they kept blowing into his eyes when he drove into town in his $5,000 hypersix, and he was constantly running over newspaper wiseguys who had been poking fun at him.—*Exchange.*

Fig. 2

Real Old fashioned Sausage

is hard to get. About all that you are able to enjoy in these days is the memory of it. That is - unless you are wise and order your sausage from the place where up-to-date methods and old-fashioned skill combine to please your palate. The ever increasing number of people that come to

Raritan Valley Farm

for sausage proves that our product is superior.

We were fortunate in having a good season this year and are glad to say that our pork is an unusually fine lot at an unusually reasonable price.

It will pay you to try it. You will be able to secure it now. Later - we hate to say. Good things go quick. At

30 cents a pound

they go too quick to please those that are tardy. So slip a check into an envelope to-day and send it off to us.

We know that our sausage is more than satisfactory. For that reason we make a safe bet and guarantee to refund the money of anyone not satisfied.

Raritan Valley Farm
Raritan Valley, N.Y.

After I decided on the big points, I wrote in the sales appeal. The advertising manager of our local paper, helped me decide what size type to use. Of course I worked on a bigger scale than is shown here.

Fig. 3

Real Old Fashioned Sausage

is hard to get. About all that you are able to enjoy in these days is the memory of it. That is—unless you are wise and order your sausage from the place where up-to-date methods and old-fashioned skill combine to please your palate. The ever increasing number of people that come to

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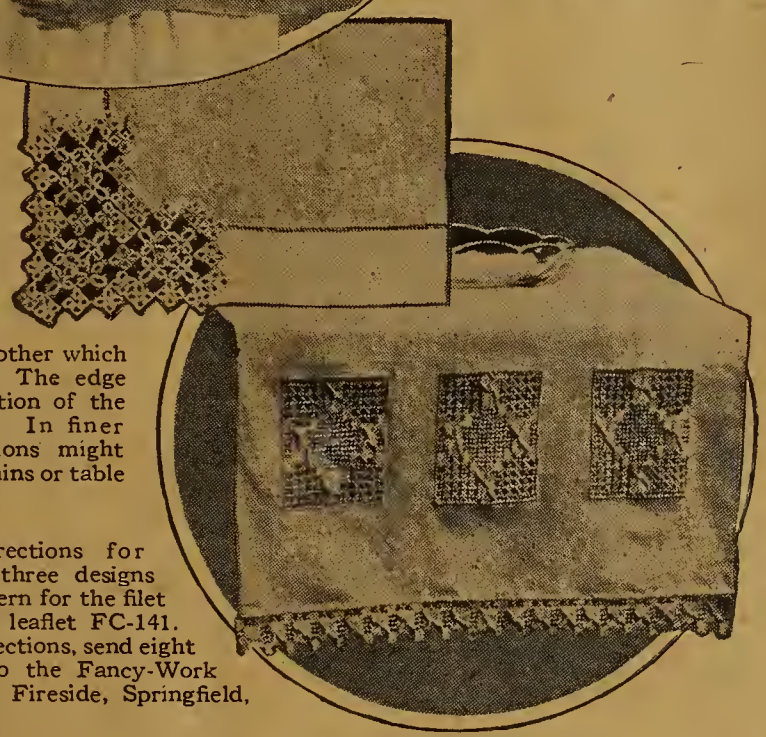
We know that our sausage is more than satisfactory. For that reason we make a safe bet and guarantee to refund the money of anyone not satisfied.

RARITAN VALLEY FARM
RARITAN VALLEY, N. Y.

Three New Studies in Crochet and Tatting

SINCE the cosmos is fall's own flower, we have chosen it as the motif in this dainty nightgown. The yoke is for a sleeveless gown, and is finished at the shoulders with small crocheted balls. The corners of the neck are made prettier, as well as stronger, by a dainty scallop. We are offering a working pattern, as well as exact directions, for making the yoke.

THIS dainty tatted corner was used in a tray cloth, but it would also make a charming finish for a luncheon set, bureau scarf, or a square doily. In very fine thread it might be used in a handkerchief. When whipping the corner to the material, be sure that the threads of the material are running parallel to the rows of tatted design.



EITHER white or ecru material might be used in working up this library table runner. The charming panel medallions, which make one think of fairy windows, combine the popular lacet stitch with another which is distinctly new. The edge is a dainty adaptation of the medallion motif. In finer thread the medallions might also be used in curtains or table linen.

COMPLETE directions for making these three designs and a working pattern for the filet yoke are given in leaflet FC-141. To obtain these directions, send eight cents in stamps to the Fancy-Work Editor, Farm and Fireside, Springfield, Ohio.

Whittling Down My Debts

[CONTINUED FROM PAGE 3]

be perfectly frank, free, and above board in all my dealings with him. But nothing doing in the cow line. Mr. Baile refused to stay for supper, said he would send out for his yearlings the next day, and drove off.

I had ordered seven cars to ship all the stuff in, but by Baile taking the yearlings I only needed five. So I went to Ancho to tell the agent.

"That don't make no difference," said he; "it don't look like we're goin' to get any cars for a while. You see, they are shippin' coke in stock cars, as we are short of gondolas. But maybe we'll get them in a few days," with the optimism of a railroad man.

WELL, the "few days," dribbled along into three weeks, and when the cars did come they were not bedded, so I had to hire some Mexicans to shovel sand in them. While we were doing this the brand inspector cut out two of the fattest cows, and declined to let us ship them, as the brand was clearly that of one of my neighbors.

I explained to him that quite often strays were picked up in drifting a bunch of cows to the shipping corrals, and that it was an error that could easily happen on the open range, and, besides, what was a couple of cows between friends?

"Ye-ah," said the brand man, "I've heard that before," and he proceeded to give my cattle another once over.

Bill and I sat on the fence and watched him cut out three others.

"If he keeps on we won't need but four cars," said Bill. "Besides, them last two are ours."

I went over to the brand inspector and insisted that he had made a mistake in his last cut. He ran the cows in the chute and picked the hair from around the brand, and discovered that two of them actually *were* mine.

Then, when we agreed to return the three strays to their home range, he gave us a shipping permit.

We loaded, and Bill took his three strays and started home. I watched him ride off, and experienced a premonition that I would miss him on the trip.

When those thirsty cows heard the water running out in the center of the "Saragossa Sea," some of the most venturesome proceeded to negotiate the breakers and wade out to the trough. There they sucked more air than water, and bloated all out of proportion to their former diameter.

Due to the absence of a mine sweeper, and not having the forethought to secure a pilot, two cows struck sunken mines, and came back each with a foot wedged in an empty tin can. Another became entangled in a submarine net of hay wire and barrel hoops, and floundered.

I offered a prayer of thankfulness for having worn my boots, and waded out to her rescue. The hayman saw my predicament, and came running. After we had succeeded in getting ourselves covered with a thick coating of submarine deposit, he had a happy thought.

"Let's make a rope by splicing a lot of hay wire together and drag her out behind the wagon."

AT LAST we got her above high-water mark, and with the wire rope snared the two cows with cans on their feet, snubbed them to a post, and fought them for possession of the trophies. Then the hayman and myself went into dry dock on top of the fence, and attempted to remove the excess marine accumulation.

It was just after sun-up when my train pulled into the yards at Kansas City. When the cars were spotted at the unloading chutes, there was Jake Starmer, the yardman representing the commission firm handling my cattle.

After the cows were unloaded in the pens on the loading dock, a man walked about on top of the fence looking them over. He

[CONTINUED ON PAGE 26]

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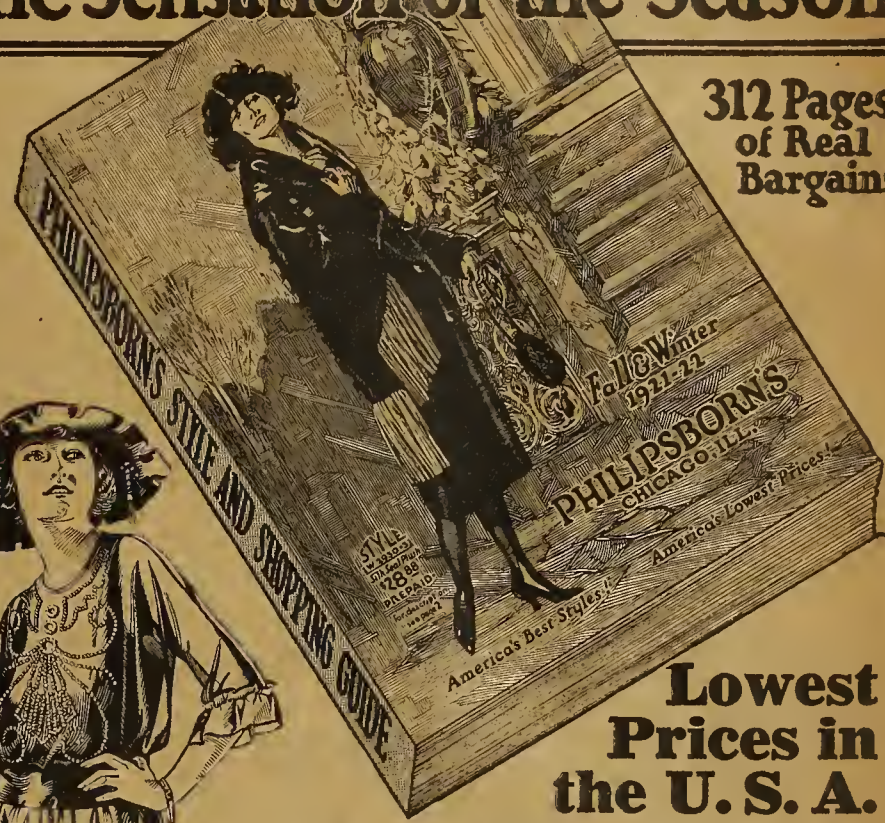
The Sensation of the Season



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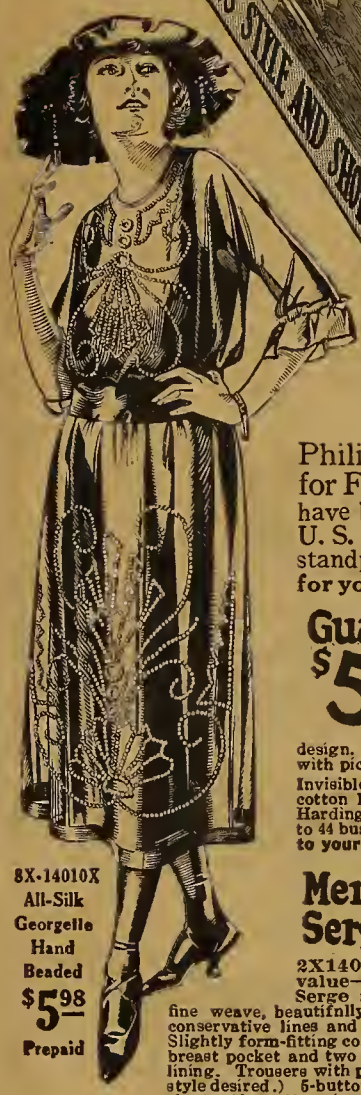

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$5.98 8X-14010X—A wonderful dress at a truly sensational price! This beautiful Georgette silk dress is elegantly embroidered in black and gold beads in newest design. Kimono sleeve, elbow length, finished with picoted ruffles.

Invisible fastenings at center back. Silk finished cotton lining (seco silk). COLORS: Navy blue, Harding blue or a pretty shade of gray. **SIZES:** 32 to 44 bust; 34 to 38 skirt lengths. **Price, PREPAID to your home, $5.98.**

Men's Morsnap All-Wool Serge Suit $14.75

2X14025X—wonderful suit value—all wool Navy Blue Serge model of an especially fine weave, beautifully finished—designed along semi-conservative lines and appropriate for men of all ages. Slightly form-fitting coat with newest rolling lapels, welt breast pocket and two flap pockets. Fine quality alpaca lining. Trousers with plain or cuff bottoms. (State which style desired.) 6-button collarless vest. **SIZES:** 34 to 44 chest; 30 to 44 waist; 30 to 34 inseam. **Price, PREPAID, $14.75.**

2X14025X All-Wool Serge Suit $14.75

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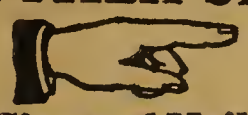

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For Prince Albert's quality—flavor — coolness — fragrance — is in a class of its own! You never tasted such tobacco! Why—figure out what it alone means to your tongue and temper when we tell you that Prince Albert can't bite, can't parch! Our exclusive patented process fixes that!

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4602 N. Broadway, St. Louis, Mo.

Suddenly a regular cornfield sort of scarecrow, black coat-tails and all, appeared in the midst of the party

A Vegetable Stew Party

By Emily Rose Burt

A BIG barn, or even a garage, always makes a fine place for a fall party. This year make it a *vegetable stew* to which everybody must come in costume.

The invitations may be scribbled on the inside of kettle-shaped folders with traditionally kettle black covers.

Oh, won't you appear at our Vegetable Stew?
We'll promise you fun ere the evening is through;
Pretend you're a cabbage, potato, or bean,
Or any old vegetable you ever have seen!

The costumes are fairly easy to manage of crêpe paper and cheesecloth and gay rag-bag contents.

Decorate the barn with strings of onions, red peppers, or any other garden products, and outside of each window place a peering ghostly white face. Barrels, sawhorses, upside-down pails, or the like may serve as seats.

The music may proceed from the hay-mow—if you choose to have music. And the musicians might all dress as black cats, and give awful ear-splitting screeches from time to time.

When the barn is full of jolly, giggling radishes, turnips, corn, peas, potatoes, and tomatoes, it's time for the games and stunts to begin. Everybody is so disguised as to be willing to indulge in foolish antics and, regardless of age, fall in with the directions of the leader.

First, then, let everybody join hands in a circle which is certain to look like a real stew, with all its varieties of vegetables. The blind-folded person in the center holds a long wooden spoon with which she stirs the "stew." As long as she stirs, the vegetables revolve, and when she says "Done!" they stop. Pointing her spoon at someone, she asks questions to discover the identity of the one selected—not the real identity, but the masquerading one—whether tomato or beet or celery. She may ask such questions as these:

"Do you have to be boiled to be fit to eat?" (Potato would say, "Yes," but tomato, "No.")

"Are you tall and skinny or short and fat?" (Celery would confess to being skinny; radish, round and fat.)

The "cook," as she is called, may ask as many questions as she likes. If she decides to give up, she stirs the stew again and selects another victim. The victim, if correctly identified, becomes the leader.

As a series of stunts, ask the corn to illustrate lending an ear; the potato, to show that it has eyes; the cabbage, to scratch its head; the beet, to become a dead beet; the lettuce, to leave; and the asparagus to act *tipsy*. Other punning stunts may occur to you.

A good mixing stunt is "Scarecrow." Suddenly a regular cornfield sort of scarecrow, black coat-tails and all, appears in the midst of the party and, flapping its arms, declares it wants to speak to the crows. It then names several of the guests —to act as crows. Then, when the crows are judge-like seated by this human scarecrow, it calls for certain vegetables to pair off—naming them at random, as Swiss chard and peas, romaine and radish. The partners form in line as fast as named, and a grand march begins—a review before the eyes of the crows who decide on the most original costume while it is yet fresh.

Of course, the old game "Oats, Peas, Beans and Barley Grow" is in place, and "Farmer in the Dell" is just foolish enough for a crowd of mixed ages.

SPELLING vegetables is another jollifier. Give each person a letter of the alphabet. Then call out the name of some vegetable —say, turnip. The six persons named as the letters of the word must assemble quickly in the right order. The result is sometimes a strange assortment of ages and sexes. This is especially lively if a person has to appear in two different places in the same word—as in potato, for instance. But if there are persons enough to go through the alphabet again, or to have several sets of vowels, two o's or two t's may struggle for places.

The refreshments are always an interesting part of a party. At a vegetable party they surely should consist of vegetables in one form or another. Good sandwiches are made with a filling of chopped celery and cottage cheese. Beet and egg sandwiches are also delicious made on graham bread. Kidney-bean salad in individual portions on hearts of lettuce could be served, and the final course might be squash pie and cheese. Coffee, cider, ginger ale, or fruit, punch is a desirable beverage.

NOTE: Ten suggestions for making vegetable costumes will be sent upon receipt of a stamped self-addressed envelope. Address, Entertainment Editor, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

How I Churn a Little Cream

By Mrs. Rose Schrader of Montana

THE average grain farmer's wife seldom handles the milk of more than one or two cows. At some time of the year the cream supply will be necessarily small, and the problem presents itself of how to churn it successfully and easily and yet have good, wholesome butter. If she keeps the cream until she has a sufficient amount for her five-gallon churn, it is usually bitter and not fit for use, owing to its age.

I solved my problem in the following manner: I poured the cream (either one or two quarts) in a common one-gallon stone jar, and churned it with the dasher of my five-gallon earthenware churn. The dasher and lid of this churn were an exact fit for the one-gallon jar. This improvised churn may be placed either on a chair or table. If the rim of your jar is not perfectly even and smooth, lay a small fold of some clean white material (cheesecloth is best, as it is more absorbent) around the edge of same to prevent any splashing or leaking of cream.

I have succeeded in churning butter many times in fifteen minutes, provided I have the cream at the correct temperature. My experience has been that 60 degrees in summer and 65 degrees in winter bring the quickest and best results. There is never any guesswork when you use a thermometer. It not only eliminates by half the drudgery and time of churning, but also insures one of uniformly wholesome, firm, sweet butter.

Suggestions From Other Women

Which may help you dress your family or your home

WHEN you discover that your bedspreads are becoming thin and sleazy at the ends, you may make them almost as good as new by making use of the following method:

Take a strong piece of muslin about twelve inches or more in width and as long as your spread is wide. Arrange this strip or facing on the wrong side of the spread on that part which is worn. Fold under raw edges of the facing and sew to position. Treat both ends the same way. It is only a few moments' work and fully repays one for the little extra expense and time involved. A spread thus reinforced will put off the evil day a year or more before it will be necessary to diminish a ten-dollar bill to buy a new one. *Mrs. R. S., Montana.*

* * *

Make a bag of cretonne or some suitable material the width of the right-hand end of the sewing machine. The length may be as liked, say about 15 inches. Hem both top ends, and just tack one of them to the right hand end of the machine. You will find it a great time and labor saver, as you can throw all small scraps into it when you are sewing. Then they are not on the floor. *E. W., Illinois.*

* * *

A great many people have admired the sturdy little suits of heavy blue denim which my little two- and three-year-old boys wear on the farm for everyday. Some say, "But I didn't know you could buy suits for such small boys!" You can't, I could not even purchase a pattern for them, but I found it an easy matter to adapt a one-piece pajama pattern to the purpose. The pajama pattern will of course have a drop seat, but, instead, lay the sections of pattern together and cut with a seam straight down the middle of the back, and then the little garment will open only down the front. Put a stitched pocket on each hip and one in front, so it will look like Dad's, and double-stitch all the seams to give a tailored effect. *Mrs. N. H. D., Minnesota.*

* * *

I had a pair of old, high white canvas shoes which were past wearing as they were. I needed a pair of shoes for working in the garden, and so tried the experiment of dying them. I dissolved a package of dark brown dye in less than a pint of boiling water and applied the dye with a small brush to the shoes. *M. E. G., Connecticut.*

* * *

When I inquired the price of flour sacks at a bakery recently, I was amazed when informed they were 20 cents each. I decided I'd find a substitute, and did. I took seven old window blinds and put them into a tub of cold water with a small cup of sal soda, and soaked them overnight. In the morning I drained off the water, rinsed them, and put to boil in soap suds and soda. When I rinsed and blued them they were very nearly white, and made fine soft tea towels. *F. A. R., Oklahoma.*

* * *

My screened porch blossomed out with an entire new set of pillow covers after harvest this year—all of dark green burlap, some plain and some enlivened with little strips of cretonne. A dime's worth of dye covered the cost, for the material was the accumulation of twine sacks found on the farm after harvest. I also covered a porch stool with the same material. *Mrs. N. H. D., Minnesota.*

Better Farm Babies

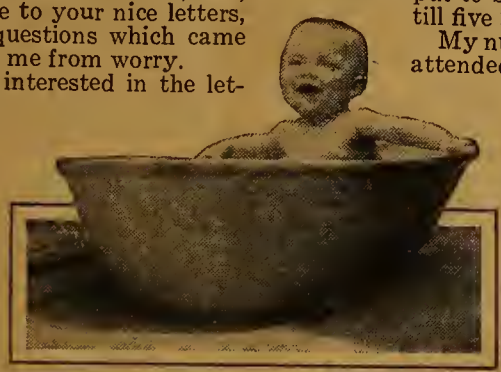
I HAVE now received all the letters in regard to baby's coming, and I want to thank you very, very much for them. They certainly have been a wonderful help to me. I have been well all of the time; this, I think, is largely due to your nice letters, which answered all questions which came to my mind and kept me from worry.

My husband is as interested in the letters as I am, and you may be sure we read them all more than once.

I sincerely wish that every mother everywhere could receive your help. *Mrs. W. B., Maine.*

YOU have indeed proved yourself a friend to me. Your advice and the kind letters were of much value to me during the long time of waiting.

My baby came June 24th. She is a Better Baby in every way, thanks to your helpful letters. She now weighs eleven and one-half pounds, and she is the best baby. She sleeps out of doors, and is a perfect picture of health. I have never missed any sleep at night since she was born. She is put to bed at night, and sleeps till five in the morning.



Here is Sidney Fitch, a Kentucky Better Baby. He loves baths, especially when he can splash around in this big tub in the sunny back yard

My nurse said "I have never attended a case where every emergency was so well provided for." You see, I had your list of supplies, and had provided each item listed so the nurse did not have to look for anything.

There were many little perplexities which your letters settled for me. Whenever I started to worry I stopped myself by saying, "Mrs. Benton will explain that in her next letter"—and you most always did!

I wish that every young woman could receive your excellent advice and suggestions. *Mrs. A. P., Ohio.*

21 Letters About Your Baby

And How You Can Get Them

THE EXPECTANT MOTHERS' CIRCLE: Any woman eligible may become a member, receiving each month a letter of advice on the care of herself and the preparation for her baby. Several practical little pamphlet circulars showing designs for maternity dresses and a common-sense layette are some of the helps sent with the letters. No matter at what period you enter, everything from the first month will be sent. No mention of the Better Babies Bureau is made on the envelopes in which the material is mailed. Enclose a self-addressed envelope with *Fifty Cents* in stamps, for postage, *and state what month you expect your baby.*

THE MOTHERS' CLUB: Every mother of young children is eligible. Pamphlets, together with monthly letters of instruction on the care and feeding of babies *under one year of age* (covering such subjects as colic, constipation, weaning, teething, etc.), will be sent to any mother who sends *Fifty Cents* in stamps and states the age of her baby. There are also leaflets giving diet lists, and other helps for babies from one year of age to three years. This literature is all included in the Mothers' Club's monthly service, but if the letters are not desired the additional literature will be sent for *Ten Cents.* A self-addressed stamped envelope will bring a prompt reply to every inquiry. Address all inquiries to

BETTER BABIES BUREAU

or to Mrs. Caroline French Benton, Counselor

FARM AND FIRESIDE 381 Fourth Avenue, New York City

The Mistakes

That ruined millions of teeth

We offer you here a ten-day test which will change your ideas about teeth cleaning.

The old methods failed to end film. So millions have found that well-brushed teeth discolored and decayed. Now dental science has corrected those mistakes, and we urge you to see the result.

Film—the great enemy

That viscous film you feel on teeth is their great destroyer. It clings to teeth, gets between the teeth and stays. It dims the teeth, then may foster attacks on them. When you leave it, night and day it may do ceaseless damage.

Film absorbs stains, making the teeth look dingy. It is the basis of tartar. It holds food substance which ferments and forms acid. It holds the acid in contact with the teeth to cause decay.

Millions of germs breed in it. They, with tartar, are the chief cause of pyorrhea. Also of many diseases.

A daily combatant

Dental science has now found two effective film combatants. Able authorities have amply proved them. Leading dentists everywhere endorse them.

Both are combined in a dentifrice called Pepsodent. Millions of people have come to employ it. And glistening teeth, half the world over, now show its delightful effects.

Results quick and amazing

This ten-day test will surprise you. It will give you a new idea of what clean teeth mean. The benefits to you and yours may be life-long in extent.

Each use will also multiply the salivary flow. That is Nature's great tooth-protecting agent. It will multiply the starch digestant in the saliva, to digest starch deposits that cling. It will multiply the alkalinity of the saliva, to neutralize the acids which cause tooth decay.

So five effects, now considered essential, come from every application. And the early result is clean, beautiful teeth.

Send the coupon for a 10-Day Tube. Note how clean the teeth feel after using. Mark the absence of the viscous film. See how teeth whiten as the film-coats disappear.

This test will be a revelation to you. Cut out the coupon so you won't forget.

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The New-Day Dentifrice

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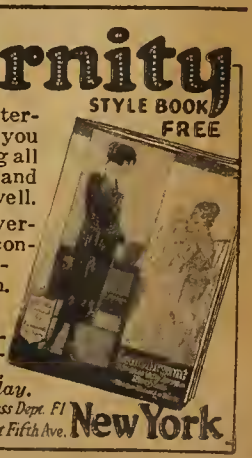

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E.S.WELLS Chemist Jersey City, N. J.
DON'T DIE IN THE HOUSE
ROUGH ON RATS

Your Market News by Wireless

By Frank George

Of the Bureau of Markets, U. S. Department of Agriculture

A STRAND of wire, a telephone receiver, a tuning coil, and a few other items, and any farmer located in most of the States of the Union can now keep informed as to prices and conditions at the leading marketing centers almost immediately after the close of the markets. The reports are literally "in the air." All that remains to be done is to snatch them down.

At stated periods each day reports of national market conditions and prices on livestock, grain, hay, potatoes, and other agricultural products are being dispatched by the Bureau of Markets of the U. S. Department of Agriculture from wireless stations at Omaha, St. Louis, Bellefonte, Pennsylvania, and Washington, D. C., and received by farmers and other agricultural interests within a 300-mile radius of each of the four cities named. The wireless stations are operated by the U. S. Post Office Department; the reports are prepared by Bureau of Markets officials.

The "taking down" of the reports is so simple that boys and girls twelve to sixteen years of age are able to do it. Moreover, wireless sets are not expensive. For $50 to $150 anyone can purchase equipment capable of receiving messages anywhere. The U. S. Bureau of Standards, Washington, D. C., will be glad to advise anyone with regard to the necessary apparatus.

FARMERS everywhere are enthusiastic over the new departure. Farmers located within 200 miles of Washington, where the service had a four months' trial before being extended to the other cities, state that the prompt receipt of national market information has given them a new "slant" on the entire marketing process, and that the service cannot fail to be of help to them in marketing their products.

When the U. S. Post Office Department officials saw the success of the Washington experiment, they were quick to offer the use of the Department's radio stations which are used in connection with the Air Mail Radio Service. A few changes in time schedules, and everything was set for the daily dispatch of the market news.

Any county agent will be glad to advise growers as to the best way to obtain the wireless information. The state bureaus of markets are also assisting in this work, as are other state and county organizations interested in promoting the farmer's welfare. Several public institutions, such as state bureaus of markets, and high schools have installed wireless equipment of their own. One newspaper at Hagerstown, Maryland, publishes the reports regularly every morning. A railroad telegrapher at a station in Maryland through which many farmers travel daily receives the news direct, posts it in the railroad station, and distributes copies among the growers. Similar methods of distribution are being employed and encouraged in the Central States.

The wireless market is a decided success, judging from the hundreds of reports and from letters from licensed operators and marketing agencies everywhere requesting information as to the service and as to when it would be extended to their territory.

Whittling Down My Debts

[CONTINUED FROM PAGE 23]

wore a badge, and seemed intent on the brands. I watched him closely, and finally I could not stand it any longer.

"Is that the brand man?" I asked Jake.

"No, he's the government veterinarian, inspecting your stuff for evidence of contagious disease," said Jake, and I felt relieved. Now, please do not misunderstand me. Brand inspection is all right, and very necessary under present range conditions. But it was a long ways back to return any strays to their home range, and, besides, he might not take it that way.

The market opened at eight o'clock. The salesman, Joe Baird, looked my cows over, apparently with the idea of getting them straightened out in his mind as to quality, etc., so he could figure on what price to ask of the buyers. After a few minutes of this he waved his buggy whip at a man riding down the alley:

"Hey, Stemm, I got just what you want!" he yelled.

"Stemm" did not seem overly impressed, and rode leisurely down to the fence a looked them over. Jake ran and open the gate, and Stemm rode into the corr with the cows.

The salesman and Stemm rode amo my $58 cows, with freight added from Ne Mexico, tapped them with their bug whips, just as though they had seen a l of that kind before, borrowed matc from each other, discussed the show at t Gellis the night before, and Stemm l Another buyer came, and the same p cedure was gone through, with the exc tion that the bright sayings of the buy four-year-old child were the topic of conv sation. Then two buyers rode in and talk about the difference between magneto a battery ignition for automobiles, who w the new stenographer in somebody's offi how much beef a bunch of cows yield that was killed yesterday, and then left.

I did not see where this had any beari on my notes that were falling due from great height, and with a certainty of crash if I did not get those cows sold. T salesman sat on his horse and leaned o the fence, and talked with someone ab non-poisonous home brew, the famine China, and what would Judge Fall do wi his appointment as Secretary of the I terior. All very interesting, but—I pu a long splinter from the fence and took knife out with the intention of offe them to him so he could whittle and down to trading. As I approached, he Stemm, the first buyer he had visited w riding down another alley, and waved whip in the air.

"HERE is a good piece of whittlin said I, holding up the splinter a my knife. "Maybe if you whittle a bit y can get down to trading and sell my co

"I just sold them to Stemm," said "for four cents a pound, and we'll w them up as soon as they get a fill."

When they were weighed, I went ac to a store and bought me a new pair shoes, as the boots had shrunk from t wetting out in Kansas and hurt my f Those shoes set me back $12; I looked the rugs in stock, and selected one t would look nice on the dining-room fl and a phonograph to set in the front r and told the salesman I would be b later.

Then I presented myself at the office the commission firm. The bookkee gave me an armful of itemized accou and a small blue check. The accounts ered the expense connected with the s ment from the minute they were loaded in New Mexico. There was commissi insurance, yardage, switching charges, f freight, and a charge for bedding the c which I had bedded myself. Also a bill feed and excess water used when I unloa the rest out in Kansas.

It seems that I had gone off and left t Kansas water running, and, what is m it was running through a meter with o one speed—and that was high. I charged with enough acre feet of wate irrigate New Mexco three flows. T agent must have mislaid his green cellul eye shade, or the gum machine was ou order or something, and he could not good.

AND the check! When all the above penses were deducted from the price, those $58 cows netted me exactly per head!

Gone were the visions of the new rug the dining-room floor and the phonogra in the northeast corner of the front ro But my $12 shoes loomed up bigger t half a cow!

I dodged by the store where I had lected the rug and talking machine, a w man. I knew the reason for the ca market being shot to pieces. The trad is done without proper attention to de and traditional niceties so essential to s important transactions. Now, if the se and buyer would get together, each wit nice piece of soft pine and, whittling, proach the matter with the dignity befitt the occasion, a cow would still be worth much as two pair of shoes.

But I saved the day. While I did take up the notes in full, I whittled th down to where they would stay up anot six months.

Do You "Keep a Few Cows"?

[CONTINUED FROM PAGE 7]

	Holstein	Jersey	Guernsey	Ayrshire	1,250-lb. steer
Milk	8699	5508	5509	6533	...
Fat	300	283	274	252	333
Protein, sugar & ash	769	537	508	596	215
Total dry matter	1069	820	782	848	548

Thus we see that even the average dairy cow produces a great deal more food in one year than a steer in a whole lifetime.

It is interesting to note the work of Tilly Alcartra, the California cow, and holder of several world's records. In her first six lactation periods she produced a total of 156,776 pounds milk and 4,913 pounds fat. According to average Holstein figures, this milk would yield 13,859 pounds sugar, protein, and ash, or a total of 18,772 pounds dry matter.

Thus she produced almost as much in six periods as Carlotta Pontiac produced in her lifetime. She is still on the job, and has been given the title of "The World's Greatest Food Factory." The possibilities of the dairy cow seem unlimited.

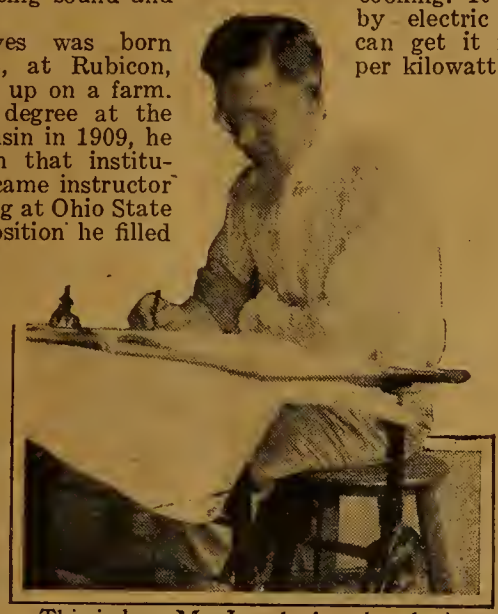
This is Tilly Alcartra, the California Holstein, holder of several world records. In five lactation periods she produced a total of 156,776 pounds of milk and 4,913 pounds of butterfat. It's no wonder she has been given the title of "The World's Greatest Food Factory"

Questions Farmers Ask Us

The answers might help you, or perhaps you have a question of your own to ask

WHEN you get ready to build a barn, install a lighting system, drain a field, or buy a tractor, you probably will want to go to some competent authority for help and advice. Frederick W. Ives, Corresponding Editor for FARM AND FIRESIDE, and whose picture appears below, is just such a man. From boyhood he has been working on problems of agricultural engineering. He stands among the leaders of his profession as a practical farm engineer. You can rely on what he tells you being sound and practical.

Frederick W. Ives was born November 20, 1884, at Rubicon, Wisconsin. He grew up on a farm. After receiving his degree at the University of Wisconsin in 1909, he became instructor in that institution. In 1910 he became instructor of engineering drawing at Ohio State University, which position he filled until 1914, when he went over to the agricultural engineering department at Ohio State. Here he soon became professor, and last year, at the age of thirty-seven years, he was made head of the department. Mr. Ives has always kept in touch with the development of power farming and other new farm engineering practice. In recognition of his services he was elected president of the American Association of Agricultural Engineers. His textbook on farm engineering is considered standard.



This is how Mr. Ives looks when he is plowing through a pile of work

But all his official positions and fancy titles don't prevent Mr. Ives from being a keen, sympathetic, practical farmer. You will find his answers to the point and full of sage advice. His plans can be followed by the average man. His recommendations can be put into effect on the average farm. Questions about farm machines, drainage, plasting, water works, lighting plants, and farm buildings are invited and will be promptly answered by Mr. Ives. Address him care of this office. Be sure to give full details, and also diagrams where necessary.

IF YOU have any questions to ask about your crops, soils, livestock, poultry, garden, flowers, fruit, or if the wife has anything to ask about the household, no matter where you live, send them in, and our staff of corresponding editors will answer them or refer you to the right authority. This service is free. Enclose stamped self-addressed envelope, and address Service Department, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

Which Light Shall I Use?

Can you give me any information regarding the practicability of installing an acetylene lighting and heating plant that is suitable for cooking purposes in a six room house which is at present lighted with city gas? *A. B., New York.*

REPLY BY F. W. IVES: An acetylene gas plant may be installed, and may use the same piping as used for coal gas. It would be necessary to change the tips and also the burners on the stoves, since the acetylene gas burns differently. The cost of acetylene would run approximately the same, although higher than coal gas at $1.10.

If electric current is available at less than 12 cents per kilowatt hour, I would advise you to install it for lighting and power purposes, but not to depend upon it for cooking. It costs too much to cook by electric current unless you can get it for about three cents per kilowatt hour.

A Good Cow Ration

I want a balanced ration for my cows. I sell butter. I feed corn meal and bran, equal parts, with mixed hay. Can I buy any kind of mill feed? What makes butter strong? Has the feed got anything to do with it? *M. C., Ohio.*

REPLY BY C. S. PLUMB: A grain mixture of equal parts of corn meal, bran, and cottonseed meal, with your mixed hay, should prove very satisfactory. Cottonseed meal is now one of the cheapest feeds for sale in Cincinnati markets, considering its composition. In ton lots it is quoted by the carload, 43 per cent grade, at about $39. If you can buy hominy feed at a fair price this might replace corn meal.

Strong-smelling butter is caused by various things. The most common cause is exposure to vessels and rooms that are ill-smelling. The fat of butter also goes through a process of decomposition when kept too long, when rancidity occurs. Butter that is properly made, and kept free from bad odors, should keep sweet, if cool, for quite a long time, comparatively speaking. The feed has nothing to do with it, as a rule. However, when certain foods like onions, for example, are fed, the odor will be transmitted to the milk. The same applies to cabbage or green rye. The rule is to feed these just after milking.

Fertilizing Fruit Trees

I set 65 trees (apples, pears, cherries) two years ago; mulched each fall with barnyard manure. Trees make a fair growth; ground grows medium intercrop. How much commercial fertilizer should I apply to each tree? Have some 2-10-2 on hand, or would nitrate be better? *L. J., Illinois.*

REPLY BY F. F. ROCKWELL: If you use the 2-10-2 fertilizer it would be well to give the trees in addition to the fertilizer a light addition of nitrate of soda as soon as spring starts. A handful of nitrate of soda to each tree will be ample. I would use three or four pounds of the fertilizer to each tree. Both should be well broadcasted around.

FARM AND FIRESIDE

The National Farm Magazine

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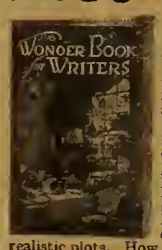

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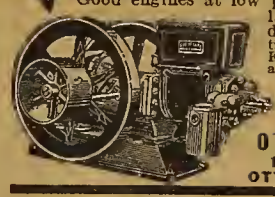

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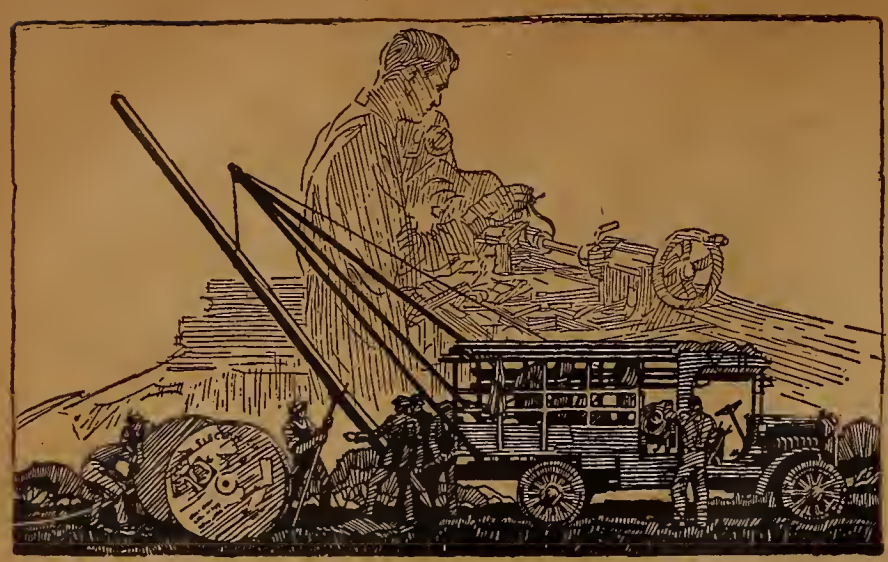

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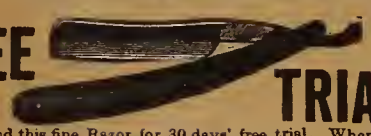

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Fire in the Big Woods

[CONTINUED FROM PAGE 4]

his men burned another strip, this time about thirty feet wide, while those on the opposite side beat out the fires started by the sparks. By the time the first gray streaks of dawn were showing, there was a strip at least a quarter of a mile wide between the fire and the original line of control.

I HAD checked in another group of fresh men, and collected the slips of those released, when Morrill told me that I'd better go down to the base camp for some rest, so I turned my steps toward camp shortly after six.

I was surprised to see how the camp had grown during the night. Numerous tents of all sizes had sprung up, not the least of which was the cooks' big one. Beyond it stood a line of men, cups and plates in hand. The delicious aroma of frying ham reached me, and I realized suddenly that I was frightfully hungry. I made a dash to the brook to remove the smoke and grime from hands and face, grabbed a plate and cup, and joined the line. I was a hungry man among hungry men, and we did justice to the helpings given us — and returned for more. Uncle Sam is generous with his fire-fighting help, and his food was not only abundant but wholesome as well. I enjoyed a pipe after the meal, then rolled up in my blanket and hit the hay for all I was worth.

This is a permanent fire line cut through this big tract at a time when the Government was holding timber sales in the forests. The reason for the line is to protect the timber and the workers—as many as 5,000 men sometimes being employed during these logging operations. A fire at such a time would mean great loss in life and destruction to adjacent timber

It was high noon when Walton awakened me and said that I was due to resume my time-keeping. His eyes were bloodshot, and he looked frightfully tired.

"Didn't the fire line keep the fire back?" I asked.

"Oh, yes; but the wind shifted to the south. We've started another line at the upper end of the old one, running a bit west of north. The fire's not burning as fast as it was, and if all goes well we ought to have it under control by midnight."

I went back into the choking, smarting smoke on the new line, and saw the operations of the night before repeated. I was relieved at seven in the evening, got some grub and sleep, and returned at two o'clock in the morning. Morrill came up as I arrived.

"Where's Walton?" I inquired.

"He went back for the first rest he's had in three days. We think we've got her under control now."

I had been on duty about two hours when the wind freshened and shifted to the southwest. I knew that this would carry the fire back toward the burned portion, and could do no damage. Half an hour later came a sprinkle of rain, and ten minutes later it was pouring in torrents. Walton came up presently.

"Fine, isn't it?" he shouted happily.

"You bet," I replied. "How do you feel after your sleep?"

"Three hours have made a new man of me. I'm going to send the whole gang back. Be sure to check them all as they come out, for they don't like mistakes when they're paid off."

Soaked to the hide, they came back, but very happy that the fire was of such short duration. At the base camp we huddled into the tents, most of us sleeping in our wet clothes. Shortly after daybreak the clouds cleared, and around the blazing camp fires we dried our clothes. Save for the two rangers and a few guards scattered around the burned-over land, the Spruce Creek fire was history.

That night when my wife and I returned to our little camp, and sat about our fire, we both agreed that the thing which impressed us most was the machine-like precision with which the fire-fighting was organized. That fire, forty miles from a railroad, was fought to a standstill before the rain arrived.

It was not until we reached Denver and took a trip of inspection with Mr. John McLaren, U. S. Forestry Chief of Fire Protection for Colorado and Wyoming that we understood the secret. In reality it is no secret at all—it is merely common sense applied to the complete preparation of the most minute detail, coupled with the clear thinking and unswerving devotion of the fine type of manhood one finds in the U. S. Forestry Service.

THE most important factor in fighting fires is to get *to* the conflagration with the least possible delay. Everything is planned with that end in view. Lists of men available for fire duty are kept by all rangers, while nearly every store in the fire district is supplied with a list of rations needed for ten men for one day. When the ranger discovers a fire, or one is reported to him, he can telephone for twenty or a hundred men as the fire warrants. Things get under way in a very short time.

Take the Railroad Springs fire, out from Lovell, Wyoming. Practically the entire population was at a ball game a half mile from the town, so T. S. Alexander, who got the alarm from Ranger Morgarridge, jumped in an auto and went to the fire ground, stopping on the way at a supply storehouse to make arrangements for a supply of shovels and axes to be ready when he returned. [CONTINUED ON PAGE 2

Great billowy clouds of smoke rolling up from a rapidly burning fire in the lodgepole pine of the Arapaho Forest of Colorado

This is Mr. Brown's home on the thirty acres which, through systematic handling, paid enough to send his two boys through agricultural college

Thirty Acres Sent Our Boys to College

[CONTINUED FROM PAGE 8]

were we going to manage with our chaps?

I learned more from that argument than I have learned at any institute before or since.

I formed another partnership—with the two boys, my wife, and myself. Our ambition was to make money and save it. For what? Schooling. We worked partners in pig, calf, chicken, sheep, and crop ownership. Every extra dollar we made went into our educational fund, and that fund was in a bank 16 miles distant, which we reached, for depositing, by mail.

We could keep enough money here at home to operate our work and pay board and tuition for the boys while they were in high school. But we knew this fund would be needed when they got into college.

About this time we began to lean heavily upon our accounting system, as it was making money earners of us all. Our neighbors were making money, too, but none of them knew how much. Our books were our business backbone. We tried to add this bit of an income, and that bit, so we would have a greater showing each year. I figured recently with a quarter-section farmer to find out whether he was an income-tax subject. He was so badly at sea after three hours that I shoved my pencil into my pocket and gave it up. I should like to see a book-accounting system on every farm in the land. More girls and boys would get to college; more equality would exist between city, factory, and farm wage earnings; more dollars would be kept on the farm, and fewer go to the city.

HARD work and careful management, prompted by our account books, enabled us to send both of our boys to Ohio State University, our own university, one of the very best institutions of its kind in the world. At least our boys think so.

We have suffered some hardships to make this education possible for these boys. But it is worth all it cost. A college education is something one can never lose unless his life be snuffed out.

But to go back to the accounts: I have before me twenty-six years of farm accounts on our own farm, and it is a mighty interesting study.

Our profit account with our bit of a 30-acre farm runs as follows: 1896, $248.27; 1897, $254.04; 1898, $254.93.

Then we began to step on her toes, with hard-burnt tiles, and the income stepped up likewise. The following three years show: 1899, $328.09; 1900, $702.62; 1901, $476.15.

Our memorandum (we have kept a daily record of what we did, what the weather was, etc.) shows 1900 to have been a very prosperous year, with a bit of a bulge in prices. The following year we had a wet harvest, hard on small grain, rotted potatoes, etc.

THEN our orchard began to bear. We had drained it, whitewashed it, sprayed it, and pruned it. We picked enough apples every year while the boys were in high school to pay their board, and many weeks we paid the landlady in apples alone. The soil that had been drained began to be more productive because we could plant things and cultivate them when we wanted, without waiting a week after each rain. Prices began to bulge a bit more, and the last five years have treated us as follows: 1915, $893.93; 1916, $1,301.73; 1917, $1,041.13; 1918, $1,072.94; 1919, $1,941.73.

Of course our 1919 account, as you will note, is badly inflated, and it was wheat that did it, high-priced wheat. It used to freeze out, but since we have dry soil for it it sticks even in our black corn ground: and the quality was so good that we sold every bushel right on the farm for seed at $3 per bushel. The field we grew it on produced better than 35 bushels to the acre.

Has our plan paid? We are still living happily on this bit of a 30-acre farm, and have our hands full most of the time managing it right. We are out of debt, and have spent several thousand dollars educating the boys at the university. We might have spent this money for more acres, but we didn't, and we haven't a single regret.

"Ugh! Heap Bad Medicine!"

By W. S. Andrews

"UGH! White man bring heap big pest! Gunpowder, firewater, plug hat; now bring corn borer. Ugh! Heap bad."

Such is the decision handed down by the native rulers of the Seneca Indians, who live on the Cattaraugus Reservation, 30 miles southwest of Buffalo, New York. This outburst of righteous indignation was caused by the placing in quarantine of one of the council houses used by the Indians in their meetings and ceremonies. Districts infested by the European corn borer are placed in quarantine by the Federal Horticultural Board of the U. S. Department of Agriculture. It is not known how the corn borer was introduced to the reservation. Some of the Indians attribute it to the training school on the reservation, which has brought in new customs and new farming methods.

MAIZE or Indian corn is greatly revered by the Indians, and is used in many of their tribal ceremonies, including the green-corn dance and the annual exchange of ears of corn between the different tribes and families. The quarantine prevents this exchange, and naturally is very annoying to the tribesmen. However, through their leaders they have promised to abide by the quarantine, so as to wipe out the disease.

The Seneca Indians of western New York have a peculiar government of their own, with council houses at Versailles and Red House. Their authority is said to be handed down from the original Six Nations. To some extent they are independent of either state or federal control.

Fire in the Big Woods

[CONTINUED FROM PAGE 28]

At the ball game the contest was getting interesting. Two men were on bases when Alexander, in his motor car, drove into the middle of the diamond. He stopped over the pitcher's box and shouted:

"There's a fire over at Railroad Springs, and I want thirty men to fight it!"

The ball teams and forty-four other men jumped into motor cars and rode to the end of the trail, thirty miles away, and were starting into the forest with complete equipment in less than two hours after the alarm was given.

This is but one example of the efficiency of the Forestry Service. It is saving Uncle Sam money, and when it saves for Uncle Sam it saves for you and me.

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Wonderful Discovery by Noted Scientist Kills Every Rat Within a Week's Time—Not a Poison.

Rats cost farmers over two hundred millions of dollars a year, through the destruction of grain, poultry and buildings. Farmers need no longer suffer this loss because they can now kill off all the rats on their farm in less than a week's time. This is possible through the remarkable discovery of E. R. Alexander, a Kansas City chemist, who has perfected a virus which kills rats, mice and gophers as though by magic. This product is not a poison—it can be eaten by human beings or any animal on the farm as safely as their regular food, but means quick, sure death to rats.

This wonderful rat virus, which is known as Alexander Rat-Killer, is merely mixed with bread or meat scraps and placed where rats, mice or gophers can get to it. Within a few hours after a rat has eaten Alexander Rat-Killer he gets a high fever and suffers a terrible thirst. He leaves the barns and nesting holes and goes to the open fields in search of pure air and running water. Rats and mice affected always die away from the barns and houses, so there is no odor.

It is a scientific fact that one rat affects others and soon the whole colony leaves the buildings and dies. And though this virus is absolutely deadly to rats—chickens, hogs, cattle or any farm animal can eat it and not be affected at all.

So confident is Mr. Alexander that Alexander Rat-Killer will kill every rat on your farm in less than a week's time that he offers to send, as an introductory offer, a regular $2.00 tube for only $1.00. Give it according to directions, and if at the end of a week's time you are able to discover any rats, mice or gophers on your farm, your money will be refunded. A big Kansas City bank guarantees that Mr. Alexander is reliable and will do as he says.

Send NO MONEY. Just write to E. R. Alexander, Alexander Laboratories, 182 Gateway Station, Kansas City, Mo., and the tube will be mailed at once. When it arrives, pay the postman only one dollar and postage on the guarantee that if not absolutely satisfactory your money will be returned without question. Write today—a postcard will do—and stop your rat losses now.

This Wagon Will Save Your Back

By J. B. Green

THE handling of large quantities of heavy material like silage necessitates the use of a rack that must be built with two ideas in mind: the wagon rack must be substantially built, and it should be as near the ground as possible, since the green corn must be taken from the ground where it has been deposited by the corn binder or the hand cutters.

The illustration gives a clear idea of one way to build a rack that will carry a large load of green corn, and also allows the loading to be done with a minimum amount of lifting.

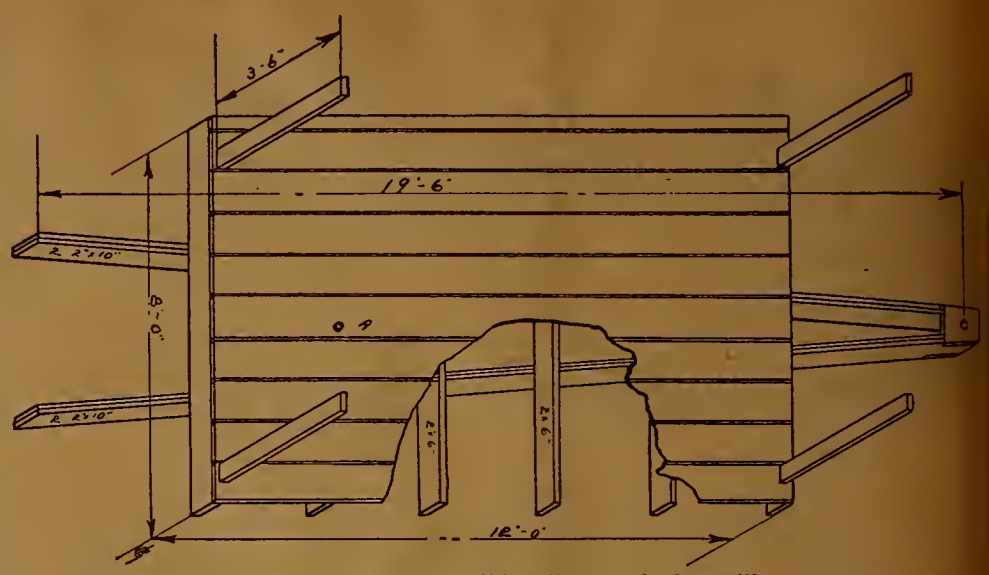
To accomplish this, two sets of long timber (in this case two 2 x 10-inch sticks) are brought together at one end, and so fastened that they may be swung below the fifth wheel of the front axle of the ordinary farm wagon. Note that these are suspended under the axle by means of a heavy bolt that replaces the king pin. In like manner, the back ends of these timbers are spread apart, so that they just fit inside the back wheels and are here suspended under the rear axle of the farm wagon by means of two U bolts, which are run through flat iron bars lying across the top of the axle. The U bolts are drawn up tightly, thus making a stiff connection to the hind axle.

This platform is now suspended between the hind and the front wheels, and will be not more than 30 inches off the ground. Since the front ends of the main timbers are drawn together, the front wheels are allowed to turn nearly at a right angle with the direction of the rack, thus affording a means of short turning in the field. This feature is very necessary on such a long-geared wagon.

A STUB coupling pole through the hounds, extending back over the two main timbers, is used. This pole is fastened to the timber by a cross block and U bolts, so that the hounds work freely. In much the same manner the back part of the running gear is fastened to the rack by using a bolt through the hole marked A. This arrangement does away with a long coupling pole, and makes a strong substantial arrangement.

This size rack will carry 2½ tons of green corn fodder, if loaded to its capacity. Where long hauls are necessary, large loads are great time savers. The men in the field are very much in favor of this style of low-down rack, and it has the distinctive advantage of being used upon the regular farm-wagon running gears. Furthermore, this rack will be found very useful in many ways about the farm. Side boards and end boards may be used, and the corn snapped off by the binder can be picked up and loaded on this rack with a minimum amount of labor. It also makes an ideal potato wagon, and is just the thing to use in hauling stones off the field. It is surprising what large stones can be rolled upon it.

In the same manner it is used for hauling stumps and brush, and it is just the thing from which to distribute fence posts when a new fence is being built. In fact, there are countless uses for this rack, and once it is on the farm you will wonder how you ever got along without this handy wagon.



By following this diagram you can build a silage rack that will save you a great deal of labor in silo-filling and on other jobs that require heavy lifting

A Portable Water Trough

FOR the movable farrowing house that most swine breeders now prefer, an excellent watering trough can be made from the end of a 50-gallon barrel. Each barrel will make two good troughs.

Saw squarely through all the staves about two inches above the third hoop, thus making a trough about 10 inches deep. A circular cover is made of one-inch pine boards nailed on strong cleats and fastened to the trough by means of thumb nuts. In the edge of this cover a semicircular opening is cut, five inches in diameter, while directly beneath this the edge of the trough is cut down flush with the top of the upper hoop.

This trough is not easily upset. It keeps trash and dirt out of the water. And it keeps the water cool. It is more easily moved about than a concrete trough, when the farrowing house is moved to a clean site.

A. A. JEFFREY.

How My Wife and I Work Out Our Finances Together

[CONTINUED FROM PAGE 5]

been a great success, and after more than twenty years of married life we think it the only way, especially for farmers. We keep a strict account of everything bought and sold, and all the money taken in goes in a general fund upon which we both draw. I keep all the books, and understand our business perfectly, as we always talk everything over.

We bought a farm and had debts to pay and all kinds of family expenses, but we always had the money ready to meet the obligations. Now we are out of debt, have a good home, a fine bunch of Liberty and Victory bonds, besides a generous amount of other stocks and bonds. We have a joint bank account, and my name on a check has never been questioned.

My husband has great confidence in my business ability, and never makes an investment without discussing it first with me. I accidentally overheard him telling a friend, "If my wife says it's all right, that settles it."

If more men would make partners of their wives, as they promised in the beginning, there would be more happiness and fewer heartaches. Some men say their wives can't manage. No wonder—they never have anything to manage with.

Analyzed Expenses

Third Prize: Won by Mrs. G. H. M. of Ohio

SINCE we began our married life on the farm some ten years ago, I have kept the farm accounts and books, paid the bills, taken care of the correspondence, and looked after the registration papers as my part of the business. In the beginning I asked—rather timidly, it is true—for a personal and housekeeping allowance.

"Oh, no," said my husband, "we will have the one checking account. It is yours as much as mine."

It sounded all right, that little speech of his, and very generous. In some cases it would have worked out all right.

But I kept the accounts, and the amount of money needed for farm expenses was staggering to me. I was always fearful that if I did buy the new tablecloth there would not be enough money to pay the hired men. And of course hired men were necessary to our existence.

The result was that I denied myself many things which I should have had, while there was nothing in the way of up-to-date farming equipment that my husband hesitated to get. A bit of resentment at farming conditions grew within me.

Finally, after several years of worrying over the things I needed and was afraid to get, lest we would not be able to pay the feed bills or the taxes, I made bold to insist on an allowance of my own.

As soon as my husband understood exactly how I felt, he was very glad to have a certain amount checked out from the "common" checking account and deposited in the bank for my household and personal expenses.

Saints preserve me from ever having to go back to the old way of never having a money I feel easy to spend! I know exact what I have to come and go on, and so do my husband.

So far I have never had to "borrow from my husband's account, though has borrowed from mine several tim And let me tell you a secret—I not o have a checking account now, but I a have a savings account.

We "Incorporated"

Fourth Prize: Won by Mrs. George Double of Tennessee

WHEN I told George that I did know a thing about farming, he s "Well, *I* do."

When I explained that I had ne cooked a meal or kept house, he swept t objection aside by saying, "Miranda do that if you'll let her."

"But I won't feel like I'm earning board and keep!" was my last prot which he met in the usual way, and I d cided he was strong enough to earn boa and keep for two.

At first I enjoyed being the guest honor in my own home, but I soon tire doing nothing. Business life had not fit me for work about the farm.

Then, one Saturday, I heard Georg the little room off the front porch. snatched things about and used words t expressed his feelings. He had forgotte get enough cash from the bank to pay the hired men, to whom checks would useless in the city where they were known—they were going on an excur This was my opportunity to really something. The next Saturday saw hired men paid off speedily. The w thing came as a surprise to George, had not been in the little room off front porch during the week. When men were gone he dropped into a chair looked about him.

"Gee, it's fine!" he said.

The dingy little room had chan Gray oatmeal paper made it seem lar The lady's writing desk that George used had disappeared into the attic, a dear old mahogany table with ro drawers came down-stairs to adorn center of the "office." A smaller table a rebuilt typewriter, and still another t held card files. Linoleum in a pr pattern covered the floor; but, best of my trip to the bank early that mor made the paying of the hands an matter.

That was the beginning. Now I all the letters, pay the bills, and do banking. We call ourselves "The C pany." George is superintendent of duction and sales, and I am secretary treasurer. At meetings of the board directors there is mutual appreciat George says he is glad he married a wom with business training; I am glad m husband lets me help run the farm.

Miranda is training me in the art o cooking, and says I've learned "rig smart."

Best wishes to FARM AND FIRESIDE—i management and its readers.

Don't forget—the housewife is an important party in the farm business.

BOYS AND GIRLS

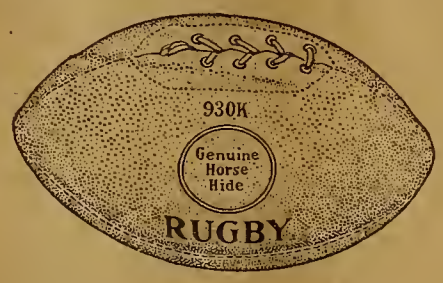
HERE'S HOW FARM & FIRESIDE WILL HELP YOU GET IT

WE bought these fine rewards for you. And we bought a lot of them in order to get the very best prices, and in turn offer them to you for just as little work as possible. All we ask you to do is speak to a few of your neighbors about FARM AND FIRESIDE and obtain their new or renewal subscriptions to it for one or two years. You take one-year subscriptions for 50 cents, two-year subscriptions for $1.00. Try to get as many of the two-year subscriptions as you can since they count up so much faster toward earning your reward. Your copy of FARM AND FIRESIDE is all you need to start out. You will find it easy to obtain subscriptions to FARM AND FIRESIDE. Try it to-day and see how quickly you can earn one or more of these excellent rewards.

What do you need in the way of SCHOOL SUPPLIES?

What would you like to have for your own AMUSEMENT?

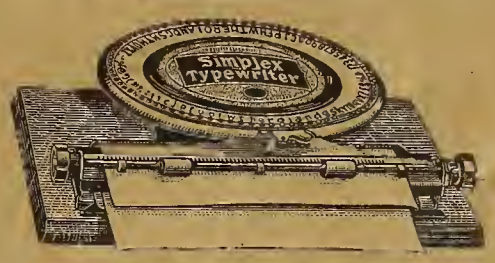
This is a 16-inch walking doll. Yes, besides being the cutest and best made doll you ever saw, she walks. And will sit down, too. She comes with a pretty gingham dress trimmed with lace, a cute little cap, slippers, and stockings. She has blue sleeping eyes, dark brown hair, and movable arms. But the fact that she walks is the real reason all the girls who own her say she is their favorite doll. Reward No. 1049 sent postpaid for $2.50 in subscriptions.



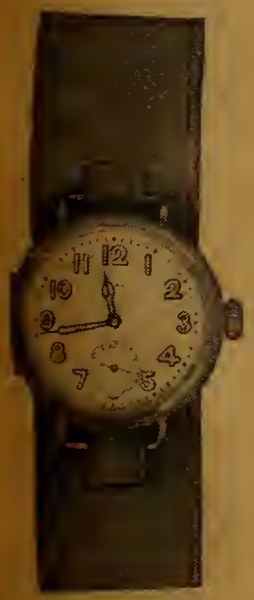
We have looked at the sample footballs of many manufacturers during the past summer and after turning down a large number, we finally got the one shown above, which we are sure will please any boy who likes to play football. A crackerjack football it is, made of genuine split horsehide leather—a football that will easily stand being kicked around all season. It has a guaranteed steam-cured reinforced bladder. If this bladder, with reasonable care, fails to hold out, we will gladly replace it free of charge. Whether you play the regular game or not, you'll have loads of fun with this Rugby ball. No question about it—it surely is a dandy. Our supply is limited so you will have to hurry if you want one. Reward No. 1056 sent postpaid for $1.50 in subscriptions.

This is not a toy but a real honest-to-goodness phonograph that will positively play any record up to 10 inches all the way through with one winding. It is substantially made of sheet steel, enameled black. Produces music that compares very favorably with that of very high-priced machines. Light and compact, this phonograph can readily be carried from place to place. You will have many a jolly good time playing it in your own home much to the delight of your mother and dad, who will enjoy it every bit as much as you do. Or you can take it with you wherever you go—to dances, parties, picnics, etc. Any boy or girl can easily earn this fine phonograph. We know you will be delighted with it. Reward No. 1057 sent postpaid for $4 in subscriptions.

This beautiful, rich-looking red grain leatherette writing cabinet contains all the writing materials you need for school use. The case measures 8¼ inches long by 4 inches wide. The inside flap contains a blotter which can readily be replaced with a new one. With the two fasteners it is possible to close the cabinet snugly. Contents are 5 high-grade pencils—3 with metal tips and erasers—a penholder, an eraser, a metal point protector and a metal case of extra pen points. Reward No. 1000 sent postpaid for $1.50 in subscriptions.



Any boy or girl can quickly learn to operate this simplified typewriter, and with a little practice get up good speed. Just the thing for writing letters or doing your school work. Why not get one of them and start turning in to your teacher the neatest papers of any pupil in your class. She will appreciate your work ever so much more. The typewriter is small enough for you to carry it back and forth to school if you want. Reward No. 1051 sent postpaid for $2.00 in subscriptions.



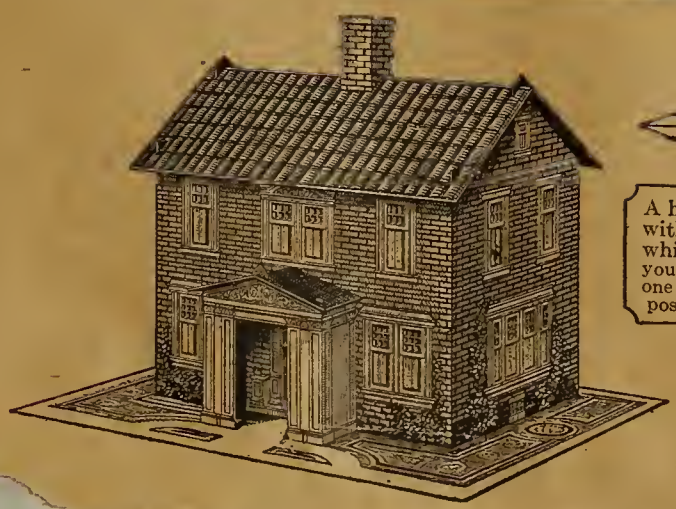
We have two kinds of watches, one for girls and one for boys. Girl's watch has a heavy nickel case and radium dial. Comes with a pretty black silk grosgrain ribbon. Boy's watch heavily nickel plated, has a radium dial and military strap. Both are fine looking and keep good time. Boy's watch, Reward No. 1001, sent postpaid for $3.00 in subscriptions; girl's watch, Reward No. 1002, for $4.00 in subscriptions.

This Eastman Premo Jr. Camera with seal grain cover and leather handle makes beautifully clear pictures of just the right size to paste in an album—2¼ by 3¼ inches. It is a genuine Eastman, so you may be sure it will give you good service. You can take either snap-shots or time exposures with it. The good times you will have taking pictures with this camera will more than repay you for the little work you do to earn it. Reward No. 2012 sent postpaid for $3.00 in subscriptions.

One of our most popular and useful rewards. This silver-finished pencil stays sharp always. A single turn brings out its lead. Top contains six extra leads and each pencil is equipped with a clip for safe carrying. Reward No. 1034 sent postpaid for $1.00 in subscriptions.

A high-grade, self-filling fountain pen with solid gold point tipped with hard iridium. The ink flow of this pen is smooth and even, which enables you to write your very best—clear and legible. If you want to get better marks in penmanship at school you ought to get one of these pens. Note that it has a safety clip. Reward No. 1014 sent postpaid for $1.50 in subscriptions.

This Weeden steam engine with valves, boiler, piston, whistle, and all, will bring you loads of fun. It runs at great speed for a half-hour with one firing up. With it you can operate any number of home-made out-



...omething every little girl has longed for—a dolly's ...lls. The one shown here is two stories high and is ...ard. When set up it measures 7½ inches ...d 11 inches high. You can actually ...'s home comes with three ...s. Th...lie dolls each ...art's

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the.....Reward No.....
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R. F. D. No.....Box No.....State.....

Our Letters to Each Other

Wherein we talk things over—so if you've got anything to say, let's have it

"DEAR MR. MARTIN: Though I am one of those busy farm wives, I do have time to read FARM AND FIRESIDE, and in looking over a recent issue I find Mrs. G. H. M.'s letter, and it hit the spot!

"I have been so disgusted with the articles on the poor down-trodden farm women that I have longed to put my thoughts on paper as Mrs. F. so aptly has done, but my pen is not so facile. I was raised in a town of about fifteen hundred, and taught school until I married my farmer. I have worked longer hours and harder than I ever did before, and have never been so well physically or content mentally as now!

"My boys are serving their apprenticeship while growing up, and so have a firm foundation for their work in agricultural college. My little girl of four 'feeds the peeps,' makes garden with Mother, and has her own short row of sweet peas. Far from envying my city cousins their hours of leisure, I pity them for their narrow vision. I look back with a smile at my own brief trial of city life and the disillusionment that speedily followed. And now! my babies have all the milk they need, the farm for a play yard and training for the future as they grow. No, I will not bet even my old garden hat, I need it too much, and I'd surely lose.

"More letters like Mrs. M.'s will surely be acceptable. Some writers would have us believe that farmers are a different species from men not living on farms. I have found them no different in any way—they work hard; so do we. There is no room for parasites on the farm. Everyone must earn his way, and the earning gives a satisfaction that nothing else can.

"Sincerely, MRS. R. D.,
R. F. D., No. 2, Flandreau, S. Dak."

The only statement in your letter that I can't agree with is the one in which you "pity" your city cousins "for their narrow vision." You hit the nail on the head when you say that human beings are the same wherever you find them. And Heaven knows we are all narrow enough, each in his own way, that we can't hurl the charge at anyone without grave danger that it will boomerang and bang us on our own heads.

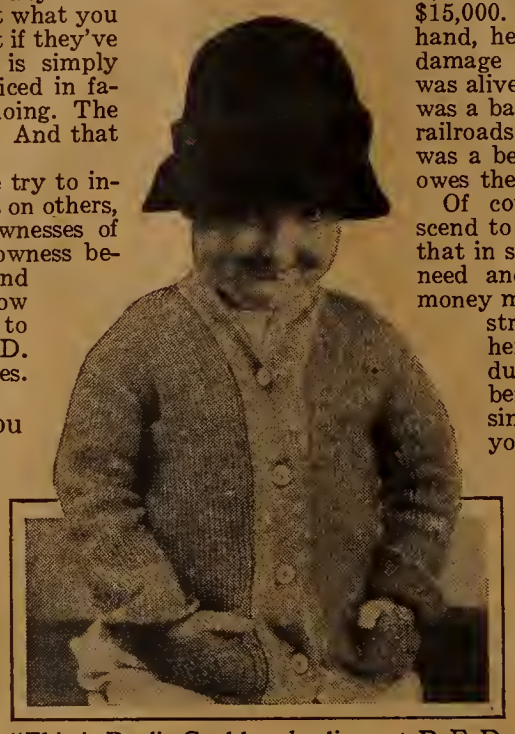
As a matter of fact, I don't see that narrowness is such a serious charge. Up to the point where it enables us to be enthusiastic enough about what we are doing to insure that thing's being done well, narrowness is a good quality. If we cannot be narrow enough to feel that what we are doing is a more desirable and useful thing to do than what the other fellow is doing, then we become as a ship without a sail, drifting; and that is fatal.

Your city cousins really don't turn up their noses at what you are doing (that is, not if they've got good sense); it is simply that they are prejudiced in favor of what *they* are doing. The same is true of you. And that is as it should be.

It is only when we try to inflict our narrownesses on others, who have pet narrownesses of their own, that narrowness becomes unhealthy and reprehensible. I know that you do not try to do that, Mrs. R. D. No person of sense does.

And What Are You Worth?

Down in Texas, the other day, the widow of a man who had been killed by a train sued the railroad for $15,000 damages. The attorney for the railroad argued that inasmuch as the man carried only $2,000 insurance, that was the value he placed on his own life, and that therefore he wasn't worth $15,000. The court is said to have agreed with him, but if the court did the court was wrong.



"This is Paulie Grubb, who lives at R. F. D. No. 1, Rockville, Pa.," wrote Charles I. Reid when he sent us this picture. "He has a great big Rhode Island Red rooster, all of his own, that weighs nine pounds; but, of course, you could guess he has a big rooster by his expression. Paulie is strong. You ought to see his muscle. His rooster is almost as strong as Paul, but they're good friends, so that makes it all right."

Every man has three values: his value of himself, his value to his dependents, and his value to society. He may be worth a great deal to himself, and nothing to his dependents nor to society. In that case he is not worth any damages dead, because the only damages collectible would be damages to himself, and, obviously, one cannot pay damages to a dead man—at least not until we have better means of communication with eternity than the ouija board.

The amount of damages due this widow is the amount of damage his death did her. If his death damaged her $15,000 worth, and the railroad company is to blame for it, then she should have her $15,000. If, on the other hand, he really did her more damage than good when he was alive (that is to say, if he was a bad husband), then the railroads' killing of him really was a benefit to her, and she owes the railroad money.

Of course, we might descend to the base assumption that in such a case a widow's need and desire for a little money might lead her to construe the damage that her husband did her during his lifetime as a benefit (many good and sincere women do this, you know), but that must be left as a technical point for the court to decide.

As for a man's value to society, it depends entirely on what branch of society is empowered to determine that. A jury of second-story workers and safe crackers, for instance, wouldn't be apt to award society very heavy damages for the death of a famous detective who spent his life running them to earth; whereas a jury of bank presidents might consider the detective's death a distinct loss to society.

Then, again, a jury of Americans would be apt to consider that George Washington was a pretty valuable member of society, whose worth could not be computed in dollars if you added up millions until you went blind. On the other hand, there was a time when the British Government would have given a good deal to put him out of the way, without the slightest regret for the damage his death might cause to society.

There have been numerous legal attempts to place a cash value on a man's life.

On that basis, several court decisions in various States would lead us to believe that at ten years of age a boy of the laboring class is worth $1,061.42; at fifteen, $4,263.46; at twenty-five, $5,488.03—from which time the decline is steady, a man of seventy, by some legal decisions, rating in value about $17.13. By the same method of valuation, a man's eye is worth $5,000; one leg, $15,000; two legs, $25,000; one finger, $1,500; and total disability, $25,000.

But that is all balderdash and hogwash—a pure beef and brawn system of valuation that might better be administered by the Chicago packers than by a court of human justice, for it demeans the human animal to the level of the meat animal.

Legs and arms and eyes, and so on, aside from being matters of convenience to the individual in physically getting around in the world, are utterly worthless as bases of individual valuation. The only thing that any human being has that is worth a whoop as a basis of his evaluation is the hair-covered bump that sits on top of his shoulders.

We might, you know, in the process of evolution, be reduced to a world of noddles but mighty heads, housing giant intellects without suffering any real loss; in fact, it is great advantage, when you consider the miseries it would relieve us of to have our abominable bodies taken away.

But we still have our bodies, and our courts of laws are still using them as a basis on which to compute our value as human beings. And how utterly ridiculous it is! I know dozens of men who gorge their families with food, dress them out of all reason, and provide them houses in all parts of the world, yet who have been abominably negligent and useless parents to their children, abused and mistreated their wives mentally and morally, and otherwise definitely proved that they weren't worth two cents as real human beings.

And so it goes.

George Martin

One Big Advantage of Growing Up in the Country

By Bruce Barton

A SPRINKLE of rain fell yesterday as I was walking up Fifth Avenue. A lady, with her little boy, raised her umbrella.

"Mother," said the youngster in an old-mannish, blasé tone, "I think we really should take a taxi, don't you?"

I looked at the speaker; he couldn't have been more than five or six years old; yet he had all the manner and point of view of a worn-out man about town. He moved among the mysteries of the greatest city in the world, utterly oblivious; its buildings and seething traffic were already a commonplace to him. I wondered whether *anything* could happen in his experience to stir a bit of awe or admiration in his sophisticated little soul.

Much has been written of the physical advantages of growing up in the country or small town—the gift of robust health, of ruddy cheeks and vigorous appetite. But there is another great glory that belongs to those whose youth is passed in simple surroundings; Max Muller described it well in his autobiography.

"My first ideas of men and women, and of the world at large, were formed within the narrow walls of Dessau," he wrote. . . . "Boys brought up in any large town start with a different view of the world, and with a different measure for what they see in later life. I do not know that they are to be envied for that, for there is *a* [illegible] *admiration*, pleasure even in being stunned by the first [illegible] the streets of Paris or London. *I certainly ha*[illegible] *all my life*. . . ."

A little later on he expressed h[illegible] denial which I had to exercise in [illegible] a constant gratitude and si[illegible] [illegible] later [illegible]

Every man who grew up in the country, and is, by the necessity of his work, bringing up his own children in a big city, must wonder frequently whether his youngsters are getting quite a square deal.

There were so many thrills in our experience which our children will never know.

I can remember vividly the wonderful afternoon that brought me the wholly unexpected gift of a velocipede: I doubt if the average New York youngster would be half as much excited to find himself possessed of an aëroplane.

The first big dollar watch that came to me when I was ten years old was treasured and fondled for years; my son had broken two dollar watches before he even learned to tell time.

I saw the Hippodrome first when I was twenty-six years old; he saw it when he was four.

There were plenty of odd jobs to be done aro[illegible] house from the time we children were [illegible] walk. Fortunately for my [illegible] during the summer [illegible] city it [illegible]

FARM & FIRESIDE

The National Farm Magazine

October 1921
5¢ A Copy

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The Farmer Who Always Succeeds—

See Page 1

There's lasting satisfaction in owning a Victrola

When the instrument you buy for your home is a Victrola you have the satisfaction of knowing:

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Vol. 45. No. 10

FARM & FIRESIDE

The National Farm Magazine

October 1921

The Kind of Farmer Who is Always Successful

By L. E. Call

Corresponding Editor for Farm and Fireside

WITHIN the past year we have heard many times this statement: "Marketing, and not production, is the big knot to untie in the agricultural puzzle to-day." I do not underemphasize the importance of marketing, but I am firmly convinced that as much study should be given to the matter of economical production during this period of readjustment as to better systems of marketing.

Certainly, marketing systems can be improved, and much can be done in this country to provide better markets for many products. If the dairymen of the United States would spend as much money in advertising milk and butter as the packers spend in advertising oleomargarine, there would be a better market for dairy products.

Why should not the people of the United States be told every day, in every possible way, of the vitamine-carrying properties of milk and butter? The increased sale of these products would help the health of the nation. We have reached a place in national development where it is possible to increase the market of many farm products in this way. The opportunity should not be neglected. Successful advertising and more efficient marketing depend upon coöperation between farmers. It is work that must be done collectively. It is for this reason that coöperation will pay and should be encouraged.

The individual farmer's greatest opportunity, however, lies in more efficient production on his own farm. Farming, like every other business, is competitive. The price obtained for farm products in the long run is determined by the average cost of producing them. If you produce your crops at less cost than the average, you make money, while those that produce at greater expense than the average lose money. When margins of profit are small, it requires hard work and intelligent direction on your part to keep the balance on the right side of the ledger. It is then that efficient production counts; that any unnecessary work that increases *expenses* without increasing *production* must be eliminated; it is then that you need to study production methods you never studied before.

WITHIN the last five years some very careful studies have been made of the production costs on the farms of this country. These studies have shown two things:

First, that efficient production is usually associated with high yields, and,

Second, that efficient production is associated with diversity of farm business.

We have heard so much of late to the effect that big crops produce low prices, that many of us have lost sight of the fact that profitable crops are very seldom produced with low *acre* yields.

The most successful farmers that I know are men who produce large acre yields of crops on their farms. They always have a little better crop than the average for their communities. This is not because they use expensive tools in handling their crops, or buy the latest make of implement that is on the market, or necessarily do more work upon their land than the other fellow, but it is because they have *good land*. They have long ago learned that it pays to keep soil in a high state of fertility, and it is that way because they do the right job on the farm at the right time.

In the Kansas River Valley, between Kansas City and Topeka, is located one of the large early-potato-growing regions of the United States. In this valley are a number of very successful potato growers, among whom Grant and Mel Kelsey are outstanding in their ability to produce profitable crops. The other day, when in the valley, I asked Mr. Blecha, the county agent of Shawnee County, Kansas:

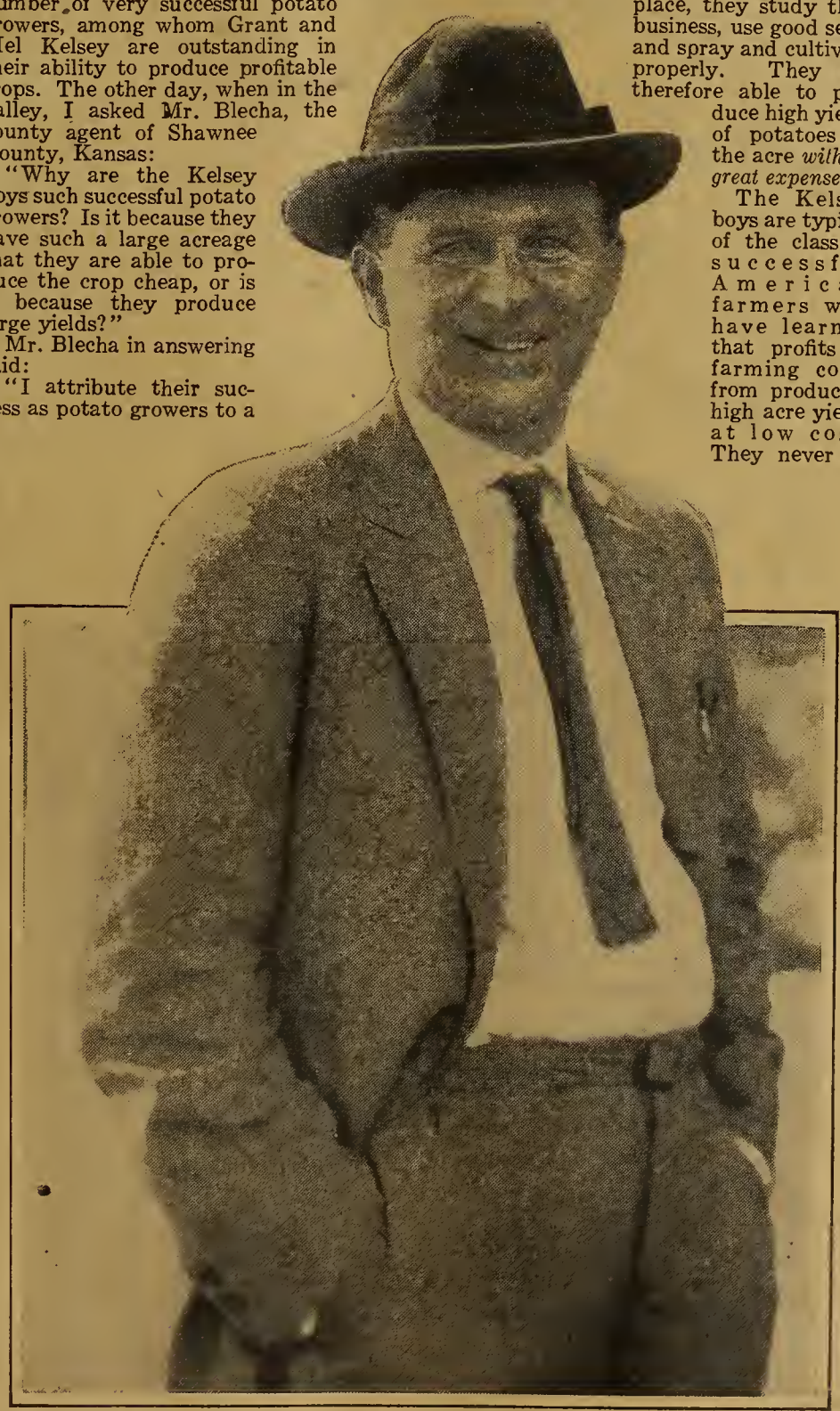
"Why are the Kelsey boys such successful potato growers? Is it because they have such a large acreage that they are able to produce the crop cheap, or is it because they produce large yields?"

Mr. Blecha in answering said:

"I attribute their success as potato growers to a number of things. In the first place, they are always among those that produce the highest yield per acre on their fields. This in turn, also, is due to a number of things:

"In the first place, they have good soil. In the second place, they have fertilized until their soil is in a high state of productivity. In the third place, they do the right job at the right time. And, in the fourth place, they study their business, use good seed, and spray and cultivate properly. They are therefore able to produce high yields of potatoes to the acre *without great expense*."

The Kelsey boys are typical of the class of successful American farmers who have learned that profits in farming come from producing high acre yields at low cost. They never go to unnecessary expense to increase yields, because they know that extremely high yields produced by too great an expenditure of either money or labor are unprofitable. At the same time, everything possible is done that will increase yields without increasing costs proportionally.



This is Mr. Call, who is Corresponding Editor for Farm and Fireside on Northern Crops and Soils, as you would probably find him should you some day visit him at Manhattan, Kansas, when he is on the job as head of the Agronomy Department, Kansas State College of Agriculture, and Kansas Experiment Station. If you should miss him there, you'd be more than likely to find him working on his own farm, which lies outside of Manhattan. We asked him for a "natural" picture, and we believe we've got it

Whenever it is desirable to reduce the production of any given crop, let's do it by reducing the acreage planted to that crop rather than by poor, slipshod methods of farming. When the acreage in crops is reduced, let's take out of cultivation those areas that are the least productive. It never will pay to intentionally produce *poor* crops on *good* land. It always will pay to put into practice good methods of farming that lead to increased yields without greatly increasing the cost of production.

FORTUNATELY, many of the things most worth while in the production of good crops do not come at great expense. They are the result of care and intelligent direction in farming. Good seed, carefully planned rotations, and timely work are three of the most important factors necessary for high acre crop yields, and none of them is very expensive from the standpoint of money invested. This is a good time to remember these facts.

There never has been a period in the history of America when diversified farming has demonstrated its soundness more completely than within the last year. The farmer who depended upon cotton alone, wheat alone, corn alone, sheep alone, or cattle alone has been fortunate to escape bankruptcy. The man who grew a number of crops, produced some livestock, milked cows, raised a few pigs, grew a good garden, and kept a flock of chickens has been able to weather the storm.

It is not necessary that a man be a jack of all trades to be a diversified farmer. It is advisable for most everybody to have some specialty on the farm to which to devote the major portion of his attention. It may be the production of cotton or corn or wheat. It may be the growing of cattle, hogs, sheep, or chickens. Whatever it be, it is a good policy to have some line of business for a specialty that can be studied, and in which line one can become an efficient producer. If it is cattle, stick by them; if hogs, stay with them; or if chickens, keep in the game.

VERY few farmers have ever been successful who changed their specialty with each change of the wind. Take up a line and stick. Stay with it through the ups and downs. If you don't, you will usually go in on the ups and out on the downs. Changing frequently from one type of farming to another has prevented many a man from making a success of his business. If you are in dairying, sheep-raising, poultry-growing, or what not, *stay with it*. Study the business. Try to become the most efficient producer in your line. If conditions are bad, remember that there will be better days ahead.

When you take up a specialty, don't forget that safe farming comes in having your eggs in more than one basket. If you are a dairyman, don't forget that a few pigs can often be used to advantage, and that a few chickens help to buy the groceries and provide food for the table, and that a good garden not only furnishes the cheapest kind of food, but that green vegetables are needed by your family, especially if you have growing children, to supply the proper nourishment to keep them strong and healthy.

If you are specializing in growing cotton in the South or [CONTINUED ON PAGE 21]

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$425 and Setting-Hen Patience Started Skinner's Famous Purebred Beef Herd at Purdue

By Samuel R. Guard

Courtesy of "The Breeder's Gazette"

FOR the farmer who is ambitious to be something of a purebred cattleman, America still is a land of opportunity. Whether one's account stretches only three spaces to the left of the cents column in the bank book, or all of six or seven, this is true; provided, of course, that he has some horse sense, some cattle convictions, and some setting-hen patience.

I am now seeking facts to appeal to the man who must buy cattle for three figures or do without, at least until he sends another crop of hogs to market.

Can the ordinary farmer of ordinary means go into the pedigree cattle business and build up a herd to command favorable attention from the cattle-breeding world?

Yes, he can.

He must be careful; he must be open-minded, and willing to learn as he goes; he must make haste slowly. It is even possible that some men would have been better cattle breeders had they fewer dollars to spend. Money is not the measure of success in improving animals. Mother Nature is not interested in money, and she holds the senior partnership in the cattle-breeding business. It is her strange child, Human Nature, that is always using money as the measuring stick for achievement.

Great herds of beef cattle have been builded on slender means and under obvious handicaps. Moreover, the herds in question have commanded the admiring attention of the world. Beef produced in one of these herds recently delighted the palates of leading statesmen of many nations assembled at the Peace Table, temporarily covered with a tablecloth for the occasion, at Versailles. Here men for whose words whole nations waited found time to express appreciation for the toothsome flesh of Fyvie Knight 2d, and to commend the efforts of the man who builded herds on slender means—John H. Skinner, chief of the Department of Animal Husbandry and dean of the Purdue University School of Agriculture, Lafayette, Indiana.

TURNING back ten years through the volumes of "The Gazette," I find in the issue of March 30, 1910, an account of a sale of Herefords at Lafayette, Indiana, by J. H. & J. L. Van Natta on March 23d. The late lamented George P. Bellows was in the box, and the best he could get for Daisy 2d, a three-year-old cow, was $155, and for Bright Lass 7th, also three, $115. Dean Skinner bought them both to start a herd of whitefaces at Purdue. Daisy 2d was by Diamond Lad by Kansas Lad Jr., the sire of Prime Lad. Bright Lass 7th was by Bright Lad, also by Kansas Lad Jr. About this time Dean Skinner raked up another $155, and bought from Warren T. McCray, Kentland, Indiana, Lady Beau Dale 4th, by Beau Armour, and in calf at the time to Prime Lad 16th, a son of Prime Lad and grandson of Kansas Lad Jr. The calf was a heifer named Lady Beau Dale 7th. Something happened to the mother, Lady Beau Dale 4th, and her heifer became the foundation cow in her stead. Lady Beau Dale 7th is still on the Purdue farm, where she has dropped eight calves, six of which were heifers, and mostly retained in the herd.

The old Daisy 2d cow had only one heifer during her period of usefulness. All the others were bulls, which were not developed or shown. The heifer is still in the herd. Bright Lass 7th, the $115 cow, dropped nine calves, of which six were heifers. Last spring, at the age of twelve, she was sold to a breeder at 15 cents a pound, because her udder had gone bad and she could not be guaranteed a breeder. At that she weighed 1,400 pounds and brought $210, or $95 more than she cost ten years before. All of her daughters proved excellent breeders, and were retained in the Purdue herd.

At the beginning of Purdue's Hereford breeding operations an agreement was effected with Mr. McCray, whereby the use of Orchard Lake bulls was secured. It was neither necessary nor possible for the College to make a large outlay for a top sire. The coöperative arrangement whereby the little breeder takes a lively young bull from the herd of the big breeder and develops him during the season for his use is not uncommon. It has apparent advantages to both parties. Any small breeder who has good females and knows how to develop a young bull would have no trouble in effecting a similar arrangement with the owner of potentially famous sires.

Dean Skinner is constantly alive to cattle values, however, and keen to drive a bargain. Having secured from Mr. McCray Prince Fairfax, a son of Perfection Fairfax, to use under the coöperative arrangement, he thought he saw in him more than an ordinary sire, so he purchased the bull for $1,875. Last spring he sold him to an Indiana breeder for $3,500.

One does not open many gates on Purdue farm in company with Dean Skinner and "Jack" Douglas before one of the "secrets" of herd-building on slender means begins to dawn upon him. It is to keep the heifers. In all the herds this is the policy. So long as the stock is growing or reproducing, the herd-building process is going on. Only the extraordinary bull-calf prospects are retained entire and developed. All other young males are either castrated, in the hope of making champion steers wor dozen times as many dollars as ordi bulls would be, or else are sold early reasonable prices to Indiana farmers steer-breeding.

But there finally comes a limit to process when the cattle are of such so and prolific stock as Purdue keeps. farm is only so big. Some time som the females must be sold. Early in 1 the first sale of Hereford females from herd was made. Nine were purchased Thompson Brothers, Indiana breeders $2,467. There are at present in the w face herd 'neath the fine old oaks and in Purdue pastures ten mature cows, heifers, and six heifer calves. There plenty of men who would give a small tune to own them. Yet they all came f the three original cows in ten years, forgetting the $2,467 bunch of nine. original trio cost a total of $425 for three. This, I should say, is found herd on small outlay.

THE dean had good luck? Did som offer that in explanation? No such th On the contrary, he had infernally bad at times. Hard sense and hard w brought success with this herd. But way of proving that big herds can be bu on slender means, we can see what cess he has had in dealing with o breeds. Purdue is a fertile field for servation, having shown three Inte tional grand champion steers, and bred of them. On this farm one can see mothers of two grand champions, and sire, dams, grandams, sisters, brot uncles, aunts, and first cousins of Inte tional champions and grand champio

Figuring the cost of establishing Aberdeen-Angus herd, apart from all s it develops that the seven foundation males cost $1,725, and the three $1,260. Let it not be forgotten that 1,340-pound grand champion steer Fy Knight 2d sold for $3,350, or $365 than has been spent on all the br stock used to make the herd what it day, and all that it has meant to the history of America. On Purdue farm day one can count of pure-bred Aberd Angus twenty-four mature cows, six he and a bull calf promising enough to war development in the hope that he will m an acceptable herd sire.

By this time the Shorthorn camp wi demanding to know whether we have f gotten Merry Monarch, whose im stands so proudly among the red, wh and roan Lares and Penates ever since won the grand championship for all bullocks at the 1917 International. him serve to clinch the argument and pr for the third time that a notable herd be founded on slender means, when th means are in the hands of such a car buyer as Dean Skinner. The dam Merry Monarch cost Dean Skinner eight years ago as a seventeen-month heifer. (Merry Monarch himself ne Purdue more than $3,000 in the Inte tional auction.) She is still on the f and looks the part of a dowager quee the breed. She was purchased from J E. Silverhorn, Rossville, Indiana. Purdue she has produced six calves. two heifers are still in the herd. On her steers is still there too—in a box and with a nice blanket on him.

AT PRESENT the Purdue Short breeding herd numbers thirteen ture cows, seven heifers, and six h calves. The six females from which they came cost originally $1,220. The two b cost $2,400, equivalent to the price of prize money won by Merry Monarch.

Times have changed. Prices are hig than those in vogue when Purdue's fo dation females were purchased. But pl ty of good cattle are being sold to-day prices relatively as low as when D Skinner made his purchases.

Only ordinary equipment has heretof been in vogue at Purdue. There are tricks and no secret formulas. Plain co mon sense did it. Now a grand new b cattle barn is in the course of constructi It is safe to guess [CONTINUED ON PAGE

Decoration by Wm. M. Berger

On a Tree Fallen Across the Road

THE tree the tempest with a crash of wood
Throws down in front of us is not to bar
Our passage to our journey's end for good,
But just to ask us who we think we are.

Insisting always on our own way so,
She likes to halt us in our runner tracks
And make us get down in a foot of snow,
Debating what to do without an ax.

And yet she knows obstruction is in vain:
We will not be put off the final goal
We have it hidden in us to attain,
Not though we have to seize by either pole

This aimless earth now circling in one place,
And steer it a direction straight through space.

Robert Frost

Written for Farm and Fireside
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"Say," boomed a voice over the partition, "this stuff is some stuff! What is it? Quince? Where do you get it?"

The Woman Seller

The story of a crack salesman who invades a new territory—and clinches his prospect

By Richard Connell

Illustrated by Edward L. Chase

"NONSENSE!" I said a trifle warmly. "A good salesman can sell anything."

"Even Dekkar Eights?" asked Dogget. Don't you hate a man who chuckles when he says something he believes to be funny?

"Anything," I replied coldly, "except, of course, Brinfield pianos. They need a hypnotist."

"Oh, is that so?" said Dogget.

Whenever Dogget corners me aboard the 5:27 Stamford Local I know that I am in for an argument on salesmanship. He once had his picture in a magazine, looking very serious and efficient over a caption that read:

He Turns Music Notes Into Bank Notes
How Edgar Dogget Sells $500,000 Worth of Pianos a Year

Poor Dogget has never been the same man since; he has become oracular; he pontificates endlessly on what he calls "the art-science of salesmanship," and I love to contradict him. Like old Dr. Johnson, I wait until he has stated his case before I make up my mind which side to take. At bottom, Dogget and I respect each other's selling ability. He has sold me a Brinfield Grand, and I have sold him a Dekkar Eight. Incidentally, if you are looking for a light-weight car that will give you 23 miles to the gallon and will stand up under any kind of punishment, the Dekkar Eight at $2,675 is—but I digress.

We argued furiously until Dogget got off the train at Mamaroneck, where he lives, and, as is usually the case in such arguments, I remember only what I said. My logic may have made little impression on Dogget, but I succeeded in convincing myself that a good salesman can sell anything.

"What are the steps in a sale?" I remember demanding. "First, the good salesman sells his man on the general idea. Second, he sells him on the specific product. Third, he clinches the sale."

I forget what Dogget said.

WHEN I reached my home in Cos Cob I regaled my wife and young son, over our evening meal, with some of the snappy things I said in the course of the argument. All my wife said was:

"Phil dear, you look flushed and tired. You are giving too much energy to those wretched old automobiles."

"But don't you think," I persisted, "that a good salesman can sell anything?"

"I'm sure you can, Phil," she said. "You'd better go to bed early to-night."

When I woke up next morning my throat felt as if I had swallowed a raspberry bush. Usually in the bathroom I sing

"Shall We Gather at the River?"

I do this partly to assure myself that my selling voice is in shape for the day, and partly to signal my wife to start the coffee percolator percolating. But I could get no further than·

"Shall we gath——"

There I stuck. My voice sounded like a sea lion's just before they throw in the fish.

In the bath I discovered that my chest was blushing a bright strawberry hue. I mentioned these facts to my wife over our grapefruit. They appeared to alarm her.

"Phil, you go right straight back to bed," she said firmly.

"Nonsense, Helen. It's only a sore throat. A few gargles and it will be all right," I objected somewhat raucously. "I've got to go to town to-day; there's a man coming in at ten who is just trembling on the brink of a Dekkar with a custom built to-day. I'll push him over to-day sure."

"You'll do nothing of the kind," said my wife. "You'll go to bed."

One reason our married life has been so happy is that I know when to argue with Helen and when not to. This was one of the latter times. I was secretly glad to be sent to bed. I felt queer. There was a buzzing of bees in my head.

Dr. Keck arrived presently. He has read somewhere that a great physician is taciturn and blunt.

"Tongue!" he greeted me.

I stuck it out.

"Ah, ha," he said, in a pleased voice.

"Say ahhhh!" he said, peering into me.

I tried, but the best I could do was "Wurrggg."

HE FELT my pulse and shook his head significantly.

"Lemmeseeyourchest," he said.

I unveiled it.

"Ah, ha," he said, "a pretty case!"

"Of what?" I gasped.

"Scarlet Fever," he said.

Then he turned to my wife.

"Must go to contagion hospital. Minimum of three weeks. It's the law. Light case. No cause for worry. G'day."

Half an hour later, swathed in blankets like a papoose, I was being carried in an ambulance over the Connecticut hills to the remote and lonely contagion hospital.

They stowed me in a private cubicle, the only patient in the scarlet-fever wing, gave me a shellac-like substance for a gargle, and a glass of milk [CONTINUED ON PAGE 24]

The Way My Father Farmed in Kansas More Than Forty Years Ago

By Frank A. Waugh

Illustrated by William A. Berger

NOTE: Frank A. Waugh is a New England fruit farmer and head of the division of horticulture at Massachusetts Agricultural College at Amherst. He has farmed and lived in Oklahoma, Vermont, Massachusetts, Kansas, and Wisconsin, and is the author of several standard books on horticulture and gardening. He was born at Sheboygan Falls, Wisconsin. During the war he was a major in the Sanitary Corps. EDITOR.

A BRASS-COLORED August sun looking straight down on Kansas, out of a cloudless heaven (Kansas and heaven being just across the road from one another); the thermometer 110° in the shade, but no shade; the meadow larks sitting on the ground songless, breathless, and panting; in the midst of the picture the old J. I. C. "separator" grinding away in a cloud of gray dust, driven by six two-horse farm teams on the rotating sweeps of the "horse-power;" Neal Hovey "measuring" and tossing up the half-bushels of oats faster than a small boy (that's me) could shovel them back in the big wagon box. It is threshing day on the farm, and the time is about 1880 A. D.

My father stands talking with Sam Eaton in the edge of the dust cloud, and he looks pleased. They come over to where Neal Hovey is sweating, and look at the register. Father still looks pleased. They come over to the wagon, and Father figures on the sideboards with the point of a ten-penny nail.

"A little better than 80 bushels to the acre," he says. His voice is quiet, but there's a thrill in it.

"Well, Doc," says Sam (they always called him Doc), "it's the best crop of oats ever grown in McPherson County."

When Sam said McPherson County he meant the world, but it wasn't worth while to mention the rest by name.

"They'll run all of 36 pounds to the bushel," said Father, standing by the wagon and running his hand through the plump kernels.

It was almost like boasting, and I know from the number of times afterward that I heard him tell how he grew 1,600 bushels of oats on 20 acres that he considered this one of the triumphs of his life:

There may be some farmers reading this to-day who are thinking that 80 bushels of oats to the acre isn't much to brag of—but let them think back to 1880 and to the short-grass dry-farming area of central Kansas, and they may see it differently.

ANOTHER picture, very different but equally vivid, returns to my memory. A transient neighbor who owed my father a substantial sum had "skipped the country." My father had made, for him, an unusual effort to collect, but all he had been able to get on the debt was an aged white cow. Apparently this cow had yielded no milk in the last fifteen years. She was as completely toothless as a Leghorn hen. The last few years of her life having been spent on the dry prairie, where her old gums would hardly hold to the buffalo grass, she was as thin as the kitchen door. She had to hold her legs outward like a sawhorse to keep from blowing over.

But Father was so thoroughly determined to realize something on his debt that he spent hours and days on that old white, hornless, toothless, milkless cow. He put her in a warm place in the barn (most of the cattle had to spend the winter in the open feedyards), and fed her on hot bran mash. This she could mumble down without teeth. He gave her more kinds of premasticated and predigested foods than a mill-town mother feeds her first baby.

After four months of this regimen she began to look much like a cow. Her legs ran straight down to the ground, one from each corner; and there was a happy look in her eye. Then Father, with anxious haste, bargained her to the local butcher. For be it confessed that in the cattle country the good beef is always shipped to Kansas City, while the local population eats whatever the Kansas City market won't take—like Father's toothless cow.

Old Whitey was to be delivered on Tuesday, and the place of delivery was the slaughter house eight miles from the farm. When Tuesday dawned, a first-class blizzard came with it. The blizzard was only beginning at seven o'clock when we finished breakfast. Now, the beginnings of a blizzard are milder and more delightful than the beginnings of puppy love, but folks who have lived ten years in western Kansas are not deceived, and look for trouble.

But this was Old Whitey's day. If she wasn't sold to-day no one might say when she could ever be disposed of. The butcher doubtless had an aged bull engaged for the next Tuesday, and perhaps a crippled farm ox for the next week. Besides, Father had promised to deliver the cow, and his word was good. It would be too bad to think of folks in the town going a whole week without beef—almost as bad as to imagine them chewing and chewing at the twenty-year-old steaks prescribed for the coming week.

No, the cow must be taken to town, bl zard or no blizzard—that was clear.

So the boy (that's me) took the leadin rope, and soon after daylight started afo and alone, except for Old Whitey, acr the country. There were few fences, a the fields were already four inches deep i snow. So we cut straight across fields fro straw stack to straw stack. Behind eac successive stack we would stop a few mi utes to rest from the wind. The storm w rising slowly, after the manner of t plains blizzard, but as yet it was mild an even pleasant. The snow fell steadily i big fluffy wads. The aged cow, not knowin her destination, was cheerful, almos frisky. The boy was warm and perfect happy.

BY TEN-THIRTY the rickety shed called the slaughter house, was reached Almost at the same moment arrived Fath who had finished the morning's feeding a the farm and had driven to town with th spring wagon. We tied Old Whitey in th shed and hastened to find her buyer a complete the delivery. After that w warmed ourselves in the store and set o faces homeward.

Now, the morning's trip had been d rected straight to the southeast. Th going home meant facing the northwes and the northwest is where the blizzar come from. In the four hours since star ing, the blizzard had settled down business. The wind was now 40 miles hour; the snow cut like a knife; the the mometer had fallen below zero. But t old white cow had been successfully fatt and sold. It was a farm achievement notable difficulty, and we were all prou and pleased. Mother had a hot dinner f us when we got home, and Father and thawed out in rich content.

But the biggest blizzard which ev participated in my father's farming ca about 1885. That was the time Jim Wilso had a bunch of steers marooned in our yar Mr. Wilson had sold two carloads of tw year-olds for delivery on a certain date McPherson. The drive from his farm w inconveniently long, so he arranged hold the bunch overnight in our feed yard. The arrangement consisted driving up with the whole bunch a asking permission to put them i Of course, Father would never ref even if Jim Wilson hadn't been personal friend. So our cattle w concentrated in one yard and the oth was assigned to the visitors.

But when the morning broke, the came a northwester with it. It w out of the question to drive a bunch strange steers cross-country in su a storm. The only proposition open discussion related to the manner taking care of four carloads of cattle yards equipped for two.

FIRST of all, the troughs were fill with corn. Plainly, the cattle wou need all the corn they could get insi of them to keep them warm. Next t racks had to be filled. Every plai man and stock feeder knows the s tem. Through the middle of the ya stretch long V-shaped racks whi are kept filled with hay, straw, or co fodder. (That was before the days alfalfa.) From these outdoor mange the cattle feed, and in the lee of the they take shelter. It is the on stable. When a storm comes, the racks must be kept full, no matt what the cost in labor; and while th blizzard blows the stockman has t keep moving there in the yards with h cattle all day, and sometimes all night Then when the storm stops, and the ther mometer goes down and down in the sti clear freezing cold which always marks th end of a blizzard—then comes the real test

So we all went to it, and for three days, i relays, we hauled hay and straw throug the blinding storm, keeping the racks pile high. The squad off duty sat about th kitchen and thawed and played euchr while my mother came and went among the steaming [CONTINUED ON PAGE 14

We cut straight across fields from straw stack to straw stack, stopping behind each successive stack to rest a few minutes from the wind

If You Have Tears to Shed, Don't Waste Them on the Farmer

WHEN Mr. Waugh brought us this story about his father, he said:

"Here is something I wrote some months ago, for my own pleasure and benefit, and not to fill any space in anybody's magazine. It does not contain any propaganda or any reform matters, any uplift, and nothing to revolutionize modern agriculture. Still, it does touch on the practical side of agriculture and farm-life, and personally I like it better than two pages of directions on how to plant potatoes."

For which we thank him. We think you thank him, too. Farming men and women are human, like other mortals, no better and no worse. They resent being pitied, scolded at, preached to, soft-soaped, or utterly condemned. They have their troubles, but they must settle them. You can't do it for them. Nor do they want you to try. If there is one prayer in the hearts of American farming people more than any other prayer, it is this:

"Heaven save us from the uplifters, and the improvers, and the calamity howlers, and the weepers of crocodile tears, and the self-seekers, and the fanatics, and all their ways and all their works. We don't consider ourselves down-trodden, not incompetent, nor lacking in brains and culture. Just let us alone. We are thoroughly capable of taking care of ourselves, thank you, and we hope you are the same."

Frank Waugh's father had that idea forty years ago, and it worked for him. The idea is still extant, and still working. THE EDITOR.

How Two Farm Boys Built Up "the Best Country Paper in America"

By W. L. Nelson

of Missouri, who was one of the boys who did the job

THIS is the story of how two farmer boys built up the Bunceton, Missouri, "Weekly Eagle," the country newspaper which the "National Printer-Journalist" has declared to be "the best newspaper published in any town of the size in the United States."

Read this story, and see whether you agree with the "National Printer-Journalist's" verdict. Compare the kind of paper the "Eagle" is, with the kind of paper your home-town editor gives you.

If you decide that your paper is as good or better than the "Eagle," show your local editor this story and compliment him on what he is doing. If there are features in the "Eagle" that your home-town editor can use, show him this story and let him decide whether he wants to use them for you. Now, here is the story:

Twenty-eight years ago, June 9, 1893, the names of two farmer boys appeared for the first time as editors and proprietors of the Bunceton, Missouri, "Weekly Eagle." The paper, then a typical small-town publication of that period, had been in existence for five years, during which time there had been a rather regular rotation of proprietors. So, among the 300 subscribers, the latest change in ownership of the "little home paper" did not cause much excitement. Some interest, though, followed an announced change in policy, to the effect that in the future the "Eagle" would have "less to say about 'pink teas' and more about red barns."

TO-DAY, after more than a quarter-century, during which time there has been no change in policy or proprietors, the "Eagle" is one of the best-known country weeklies in the Corn Belt, and has been said to be "the best newspaper published in any town of the size in the United States." The population of Bunceton is a little less than one thousand. The paid-in-advance $2-per-year readers of the "Eagle" are approximately three times this number. In advertising and job-printing there has been a still greater growth.

What is the secret? The story as here related answers the question, but, in brief, it may be said that the "Eagle" fits the field, and is filling it.

The location of Bunceton is near the center of Cooper County, which county is near the center of Missouri. Continuing this "center-shot" claim, the "Eagle" states that "Missouri, midway between the geographical and population centers of the United States, is the center of the agricultural universe." So, in a well-established farming and livestock community, it is no wonder that one of the first moves made by the farmer-boy owners of the "Eagle" was the establishment of a farm and stock department. Rather, the wonder is that somebody had not long before thought of giving the people the kind of news in which they were interested, had not thought of talking to them in terms of everyday life.

How did the readers relish the novel bill of fare? At first a few smiled and seemed skeptical, just as have a lot of folks when invited to try some new article of food. Another difficulty was also experienced. Many farmers and stockmen objected to publication of prices, it not having been the custom to give publicity to such matters. So there was need of diplomacy and tact. Requests not to publish prices were always respected. No confidence was ever betrayed. At the same time it was explained to the buyer or seller that a sale or purchase item without figures had but little news value, so might not be used. On the other hand, items containing figures were played up in a manner to be of the largest possible advertising value to those whose names were mentioned. As might be expected, all objection to the legitimate use of figures in farm and stock items was soon withdrawn. Soon, too, there was developed a real demand for such news. Not only had the people learned to like the new "food," but for it they had developed an appetite akin to that possessed by an active farmer boy. To-day, after more than a quarter-century, the demand is greater than ever before. Not only does the "Eagle" publish more local farm news than any other small-town weekly we have seen, but its advertising patronage, the bulk of it from farmers and stockmen, makes it necessary to run from 8 to 16 six-column, all-home-print pages each week.

A pertinent and proper question having to do with this paper would be, Have the proprietors merely taken advantage of an unusual field, or have they had a large part in making it what it is? In answer it may be said that, while Cooper County had long been the home of good stock and good people—the two being generally found together,—it did not differ to any great extent from thousands of others. It is well, though, to bear in mind the fact that the new editors (they were new then) were not strangers. They and "the folks" knew each other, and, what is more important, they believed in each other. What is of still greater importance, to-day, after twenty-eight years, they still believe in each other.

Mutual loyalty, sympathy, faith, and understanding on the part of paper and patrons have played a big part.

The "Eagle" has not been content to present each week a true picture of the news territory covered, but, like the old-time photographer, it has said to the people, "Look pleasant, please." Not satisfied with this mere admonition, it has diplomatically gone about to help them look pleasant. In other words, the paper has consistently preached the gospel of better livestock, better farming, and better homes, schools, and churches in the country.

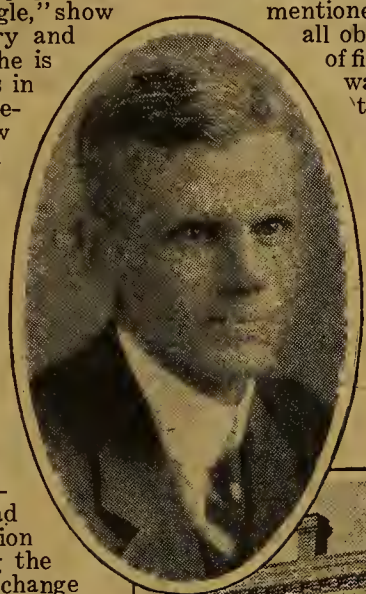
FROM time to time, in order to encourage farm women in their work, the "Eagle" has offered prizes for best reports of "pin-money" sales—eggs, poultry, butter, cream, and so on. The publication of these reports has not only encouraged those who participated in the contest, but it has also encouraged others in their efforts, and has resulted in better bookkeeping on the part of the housewives. In connection with this, it is interesting to note that reports of "pin-money" sales amounting to more than $1,000 per year are quite common.

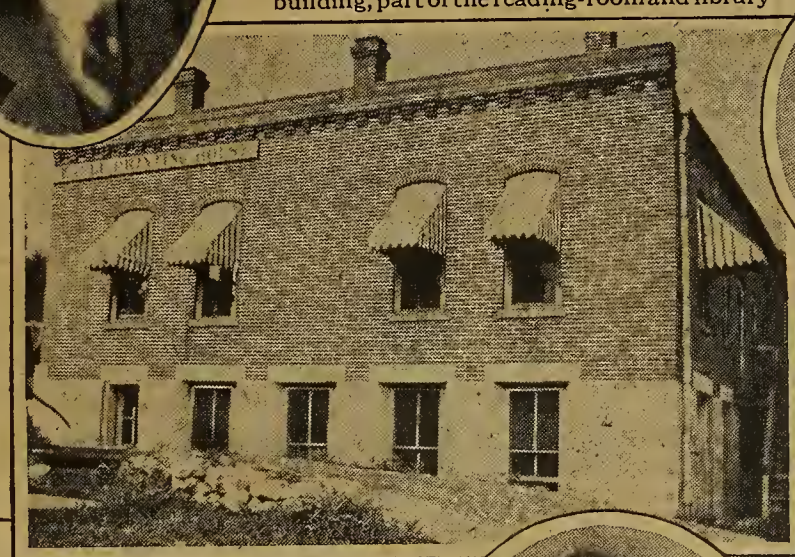
Years ago, the "Eagle" inaugurated a campaign for the naming of farms, and when one of the editors was elected a member of the Missouri Legislature he secured the passage of a bill providing for the registration of farm names, this being the first law of the kind ever enacted by any State. To-day Missouri has thousands of named farms, and in "Eagle" territory they are thick as ants on a picnic pie. Many of these farm names are as well known as are the names of local towns.

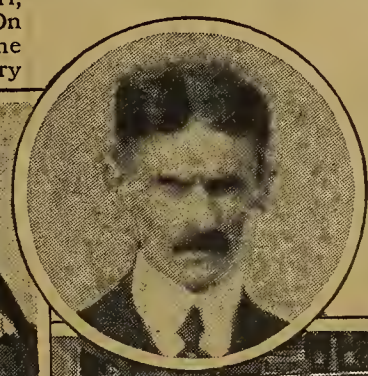
Another campaign had to do with beautifying rural school buildings and grounds, it being contended that, as school boys and girls absorb environment, due attention should be given to their surroundings. In other words, it was held that the rural schoolhouse should at least be as up-to-date as the best barn in the district, and that the school-yard should be as well kept as the most attractive barnyard. It got results.

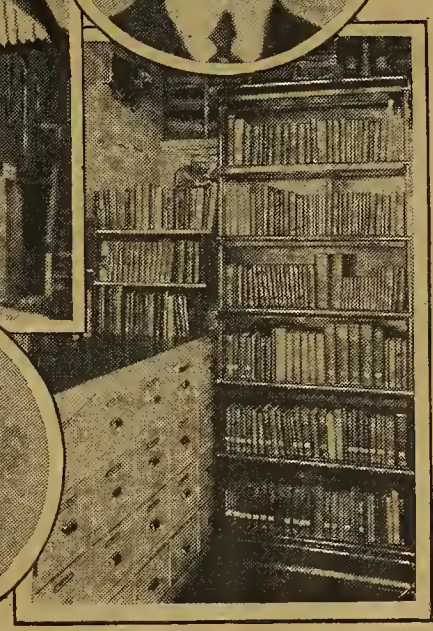
IT IS almost twenty-six years since the paper advocated an honest-to-goodness agricultural fair, as distinguished from the ordinary catch-penny, gambling-promoting outfit. Friends of the movement met at the newspaper office, and a fair association was formed. The motto proposed by the paper—"For farmers, not fakirs"—was adopted. The fair is still doing business at the same old stand. Another of the many farm movements advocated through the columns of the "Eagle," and organized in the office, is the county farmers' mutual fire insurance company, which carries policies to the amount of more than $2,000,000. In this, as in various other organizations, one of the editors first served as secretary, then saw to it that the place went to someone else, it being a firmly fixed belief that rural communities need most of all to develop their own leaders. Other community movements inaugurated or fostered by the paper include boys' and girls' calf and pig clubs, cattle, hog, and sheep breeders' associations, and clean-up days.

Not only have these movements been advocated editorially, but in practically every instance the actual organization has taken place in the large "public room" of the "Eagle" office. Just here it might be said that [CONTINUED ON PAGE 20]









Here is the "Eagle" office, a rear view, by the way, showing the press-rooms, below. The street at the front of the building is on a level with the second story. It is in this building that many of the big movements for the betterment of Bunceton, Missouri, and the surrounding territory are started. On the far right is a picture of a corner inside the building, part of the reading-room and library

These are the Nelson boys—W. L. Nelson, in the oval; L. O. Nelson, in the circle to the right; and E. C. Nelson at the bottom. W. L. and L. O. are the ones who started the "Eagle." "Less about pink teas and more about red barns" was their slogan, and it has made over the "Eagle" into the success it now is. The paper is edited at present by their younger brother, E. C., who, by the way, is also an active farmer

What I Like Best About My Home-Town Paper

Prize Contest Announcement

WHILE we do not doubt that the "Eagle" is a corking good paper, nevertheless we do think that to say it is the best country paper in the United States is taking in a whole lot of territory. Personally, I feel that, while the "Eagle" might stack up in second place, my own home paper unquestionably heads the list.

My paper is a little four-page affair printed on a muddy-colored paper stock. Its type is worn, its grammar and spelling not always circumspect, and its ads and reading matter are occasionally jumbled together, yet the largest daily in the world does not get one tenth of the attention that I give to my home paper.

There are several reasons for this—perhaps they are the same reasons that make you like your home paper best. FARM AND FIRESIDE would like to know some of your reasons, and will pay for the best letters telling "What I like best about *my* home-town paper."

Confine your letter to 500 or 600 words. We will pay $10 for the best letter, $7.50, $5, and $3 for the next best letters, and $2 for all other letters that are printed. A copy of your home paper will make your letter more valuable. This contest closes September 30th.

Address Contest Editor, FARM AND FIRESIDE, 381 Fourth Ave., New York City.

Secrets of Seed Corn Selection That Helped 'Gene Funk Succeed

By L. E. Call

Corresponding Editor for Farm and Fireside and Head of the Department of Agronomy, Kansas State College of Agriculture at Manhattan

ARE you satisfied with the kind of a crop of corn you grew this year? If you are, you will probably not be interested in this story.

Progress and greater accomplishments in all things come from dissatisfaction. Not the kind of dissatisfaction that makes us discouraged and want to give up and get off the farm, but the kind of dissatisfaction that makes us ask the reason why, and fires within us the determination to try to do the job better next year. It is this kind of dissatisfaction with our own achievements that makes for progress.

It was this kind of dissatisfaction on the part of Eugene Funk, a widely known corn grower of Illinois, that started investigation by the Department of Agriculture and several state experiment stations. This study led to the discovery of certain diseases attacking corn which, if they can be eliminated, will greatly decrease the cost of producing corn in America.

Mr. Funk is a student as well as a corn grower. He spends his entire time on the 25,000-acre farm in McLean County, Illinois, which belongs to the Funk Brothers. Since 1892 he has tried to improve his corn in order to produce better seed for his farms, as well as for the trade of his seed company. Mr. Funk knew, because he had taken the trouble to figure out the facts, that his cornfields were not producing the yield of corn that he should obtain.

IT DOES not take a very large ear, with a perfect stand of corn, to produce a crop of 100 bushels an acre. An ear of less than 12 ounces will do it. If each ear weighed a pound, the yield would run up to over 150 bushels an acre. But stands of corn are never perfect. There are always missing hills where the corn did not grow; there are always the hills that produce short, stunted stalks that do not develop; there are always the barren stalks without ears, and the stalks with poor root development that fall over before the crops mature, or, if they stand upright, bear an ear that is poorly developed, light, starchy, and chaffy.

Mr. Funk had observed these things. He was especially impressed by the fact that so many of the corn plants in all fields showed injury from diseases that attacked the roots and stalk of the plant. He recognized the trouble, but he did not know how to prevent it. He therefore asked the U. S. Department of Agriculture, in 1915, if they would not send a specialist who knew plant diseases, who could work with him on the farm and see if more could not be learned about the diseases attacking corn and, if possible, work out ways of overcoming them. The Department of Agriculture at this time was unable to lend assistance because they had no money appropriated for the purpose. Mr. Funk, so convinced of the importance of the problem, advanced the money and hired personally James R. Holbert, a young graduate of Purdue University, to start work on the problem.

Young Holbert, at that time, was just a boy, fresh from college, who had studied under Dr. G. N. Hoffer of Purdue University. Not only was he well trained, but also enthusiastic, ambitious, and not afraid of work. Mr. Funk was not sure, when Holbert first arrived at the Funk farms, whether he was the right man for the job.

In speaking of the early days of the work, Mr. Funk said:

"I was not sure a young lad just out of college would get into the work as I knew he must in order properly to study these corn diseases. So I thought I would try him out. He arrived at the farm on a hot day in the summer, after the corn had been laid by. It was dry, and we were going through the corn with one horse attached to a mower wheel in order to produce a dust mulch in the rows between the corn. I tried him out on that job. There is no hotter, dustier job on an Illinois farm, or one that will come nearer trying the temper of a man. I knew that if he would stick to that job he was the man I was looking for. He not only stuck, but at the end of the second day asked if he could not have a second horse and mower wheel, stating that he could work two rows at a time as well as one. I was sure then that I had the right man."

THAT Mr. Funk was right in his prediction has been demonstrated in the work that has been accomplished. The diseases of corn have not only been studied, but plants that are partially resistant to root and stalk diseases have been found, and strains of corn that are said to produce from 10 to 15 bushels more grain to the acre have been developed.

The Funk Brothers have not only produced seed corn germinated for vigor and freedom from disease for their own farms, but have sold such seed for $12 a bushel to other Illinois and Iowa farmers who were convinced that the seed was worth the money.

The study of corn diseases in the United States has not been confined to the Funk farms with which the U. S. Department of Agriculture has coöperated within recent years, but important results have been secured at the agricultural experiment stations of Indiana, Kentucky, Illinois, Iowa, and Kansas. The tremendous loss resulting from corn-root rot and stalk disease has been estimated at not less than 125,000,000 bushels for the season of 1919, or a loss of four per cent of the total crop. These diseases are known to be distributed in all the important corn-growing states.

ARE these diseases present in your cornfields? No doubt they are, and in selecting seed for planting this fall you should try to select ears from plants that are as free from disease as possible. This is an important reason why you should select your seed from the standing stalks before frost. In that way you will not only have more time to study the type of stalk that produced the ear, but by gathering the corn early you also can more easily avoid selecting seed from plants that are diseased. In addition, you can store the seed, after it is gathered, in such a way that it will remain in good condition for seed purposes.

It is not hard to distinguish plants of corn that are diseased. You must of course learn how to tell them. There are striking symptoms of the disease in each stage of development of the plant. When the plants are small, about knee-high, the diseased plants are stunted, often spindling and off color, and appear to be growing under unfavorable conditions. The leaves roll at the tips, the base of the stalks is often discolored and partly rotted, and if the roots of such stalks are examined they often will be found to be partly rotted.

If the soil in which the crop is growing is in poor physical condition, or in a low state of fertility, the diseased plants are even more noticeable. When the weather is dry and unfavorable, such plants wilt and show the effect of drought much more than healthy plants. They grow and develop more slowly than healthy plants, so that they are often five to ten days later in coming into silk and tassel. As a result the kernels on such stalks may not all be pollinated, and the ears will be only partly filled.

There is also a tendency for diseased plants at this stage of development to show drying at the tops, including the tassel, and the lower leaves may begin to fire even though the soil is not dry. The stalks also begin to fall over because of the weakened condition of the roots.

THE best time, however, for you to tell the diseased plants from the healthy ones is in the late summer or early fall, after the corn has fully matured, but before it has been killed by frost. It is for this reason that it is necessary to select seed corn early if one is to avoid selecting poor seed. Where the plants are healthy, the ears ripen normally, while the stalks and many of the leaves are still green. Some of the diseased plants at this time may be dead, while others may be stunted and late to mature. These late maturing plants are frequently barren, while others bear ears varying in quality from nubbins to those that are almost full size.

Many of the diseased stalks will be leaning, and some of them may be broken over. This is to be expected because of the rotted stalks and weakened root system. Another striking symptom of the disease is the condition of the ear shank. Many of the ear shanks on diseased stalks will be broken. This will let the ear hang straight down. Any ear that hangs straight down on a rotted or broken shank should not be used for seed, even though the stalk is healthy and the ear looks well developed. Sometimes this is the only visible effect of the disease. In many cases the whole ear is rotted, but in other cases the ear looks well developed. It is ears of this kind that you may gather by mistake for seed. You can usually tell such ears by the fact that they are rough, starchy, and dull in color.

WHAT can we do to control these diseases? The selection of seed, for planting, from healthy plants is the best method of control that has been developed to date. The seed should be selected in the field before the first killing frost. It is easier at that time to tell the diseased plants; and after the first killing frost, especially if the weather turns warm, conditions are very favorable for ear infection that reduces the vitality of the seed.

When you select your seed corn, follow these rules:

1. Select seed from the standing stalks in the field before the first killing frost.
2. Select only well-matured ears of medium size.
3. Select seed only from stalks that stand upright and show a strong healthy root development.
4. Select seed from stalks where the leaves are still green, but where the ear is fully matured. [CONTINUED ON PAGE 1

Here Are Eight Points That Will Help When You Select Your Seed Corn

IN THIS article Mr. Call shows how it has paid others to use care in selecting seed corn. To sum up the most important things you should do, Mr. Call puts them briefly in the following eight points:

1. Select seed from the standing stalks in the field before the first killing frost.
2. Select only well-matured ears of medium size.
3. Select seed from stalks that stand upright and show a strong, healthy root development.
4. Select seed from stalks where the leaves are still green, but where the ear is fully matured.
5. Select ears that are of convenient height.
6. Select ears that are borne on strong, sound shanks that support the ear. Avoid ears with broken shanks where the ear is hanging down.
7. Select ears that are fairly smooth, not overly starchy, and which have a bright, healthy luster.
8. Select four or five times as many ears as you will need for seed the next season.

The man in the shade of the cornstalks is Eugene Funk, who with his brothers owns and operates their 25,000-acre farm in McLean County, Illinois. In 1915 he asked the U. S. Department of Agriculture to "lend" him a man to help work out a prevention for corn diseases. At that time it couldn't be done, so Mr. Funk personally hired James R. Holbert, the man in the oval, who had just graduated from Purdue. Funk was at first afraid Holbert wasn't quite the man—but read for yourself what they accomplished

I Put in a Light Plant, and See a Lot of Things I Never Saw Before

By Carl Elmo Freeman

Illustrated by Tony Sarg

AS I look back it appears that Bella put one over on me. But I will not admit it to her.

It all started with a Chinaman opening a restaurant in Roswell. We had been having trouble getting a Mexican girl that was worth a darn to help about the house. And one day when I took an especially worthless old sister back to town I ran onto a Chinaman, Ah Fung, that said he could cook "belly well." And, what's more, he sure could. He could make twenty-seven-cent bacon taste like fried chicken! And wash clothes and iron—he was a jewel. Bella bloomed forth in fluffles and ruffles like she used to when I would call around with my new buggy to take her to the Old Settlers' Picnic in our sweetheart days.

You remember those good old days when the picnic lemonade was made in the shade, stirred with a spade by an old maid—and made of lemons instead of soldering acid. And your girl wore those starchy things, and wouldn't let you kiss her on the way home with the top up and everything—just because your breath advertised the fact that Butch Howard took you out behind a pawpaw bush and gave you a jolt out of his half-pint! . . . Them was the days.

Well, Ah Fung was too good to last. One day I brought out a letter for him, and it was all off. His brother had opened a chop-suey joint in Roswell, and wanted Ah Fung to come down and run the kitchen.

When he left, Bella said she just could not go back to Mexican help after three months of Ah Fung, and would try to do her own work if I would lend a hand occasionally. Then, in a few days, along came an agent selling electric-light plants. He had one on the back of his runabout, and demonstrated the thing. He said it would run all kinds of kitchen contraptions, besides giving juice for a lot of lights. He did most of his talking to Bella, as I was not particularly interested.

HE TOLD her all about washing machines, ironers, dishwashers, and a little dohicky he had to run a sewing machine with. He had a vacuum cleaner that he ran about over the floor and took up all the tobacco and ashes I had spilt about my chair the night before.

"A light plant with those appliances would certainly be nice," said Bella to me. "I would not need anybody to help me with the housework or anything."

"That's all very well, but look at the cost," I argued. "The interest on the price of that outfit would be around seventy dollars a year—"

"A girl costs six dollars a week, and we feed her," she broke in.

"I know, but she don't stand us nothing to start with, and she don't have to have her batteries replaced or her valves ground—"

"No, but she breaks enough dishes, tears and ruins enough clothes, to buy a new set of batteries—and she up and gets married, or she has to go stay with her sister who has a new baby or something."

Well, that agent saw I wasn't a good prospect, and confined his attentions to Bella. I went on reading while he gave her the work—he was a good-looking bird too. I noticed that when he was leaving, Bella said something to him that I could not hear. I did not think much of it at the time, but now I realize that it had considerable bearing on what followed.

That was Thursday, and I helped Bella with the dishes that evening as usual, and agreed to help her wash on Monday.

So Monday morning she rustled me out of bed and had me carry water from the cistern and fill the wash boiler on the little monkey stove in the wash house. Then build a fire under it, and carry more water to fill the tub setting on two chairs, and still more water to fill the one setting on a soap box beside the first one.

After breakfast I watched Bill Evans, my right bower, ride off to look after the cattle, and felt lonesome. Bella called me, and put me to punching the boiling clothes with a stick that had a kind of a tin-can arrangement on the end. When I had punched a few hours she showed me how to take the clothes out of the boiler with the little end of the puncher and put them in the tub on the chairs. I dripped boiling water in my boot top the first thing!

"Don't curse," said Bella. "Save some of those words for the rest of the day. We are not started yet."

She then introduced me to a washboard. Now, a washboard may be a perfect lady, but she does not improve on acquaintance. I rubbed up a blister shaking hands with her, and in an hour I had blisters on both hands. Then Bella brought forth Miss Wringer, who is a full sister to Mrs. Washboard, and she bit my thumb the first deal. By noon we had the clothes out of the first two waters, and I was to wring them into the rinse water as soon as we had eaten. Then came the second rinse water, then the bluing water. And while we hung out the clothes, Bella had some quilts soaking to wash later, and by supper-time I was a total wreck. Dully I wondered where Bella got all those things to wash. I didn't know there were that many clothes, bedspreads, curtains, and things in the world.

MY HANDS were wrinkled and sore, and so stiff I could not hold the knife and fork, and there were the breakfast and dinner dishes to do after supper. My back ached, my head ached, my feet ached, and I was wet from head to foot. I talked Bella into letting the dishes go till next day. I noticed that Bella's eyes twinkled as I groaned off to bed.

The next day Bella was sick, and Bill and I had to get our own breakfast. Then we decided to wash the mountain of dirty dishes left over from the day before. Bill washed and I wiped. My hands were so sore and stiff that I could hardly close them, and my thumb was swelled all out of shape where Miss Wringer had bit me. I dropped two cups and a plate before we got well started, and while Bill was skimming the floating chunks of bread, egg, meat scraps, and so on off his dishwater, I dropped the sugar bowl. Just as I threw out the fragments, Bella came in and made Bill get fresh dishwater. She seemed to think that a little bread, grease, and a few meat scraps in the dishwater was not ethical; that the dishes should be wiped clean before they were put in the dishpan. Bill then declared that if the dishes were wiped clean in the first place they didn't need washing in the second place, and then that agent drove up.

I never was so glad to see anyone in my life—especially when Bella said, "You go out and talk to him, and I'll wash the dishes and Bill can wipe them."

We sat down on the edge of the porch, and I rested my hands and gave my back a chance to quit aching. He said he didn't want to sell me anything, but wanted me to see a new washing machine he had and get my opinion on the mechanism. He backed his car up in the yard, set the washer up, connected it with the light plant he had bolted on the back of his car, and turned on the current.

"You see," said he, "all that's necessary is to put the clothes in some soapy water in here, turn on the juice, and it does the rest. We have a dishwasher, too, that does the work all by itself. Just put the dishes in the washing chamber, pour in some hot water and soap, turn the button, and in ten minutes the dishes are washed and don't have to be wiped. They dry of their own heat." He turned to the washing machine. "You see this wringer is run by power too. It can be set at four positions, and all one has to do is feed it the clothes. It runs while the washer is working, too, so you can rinse the first batch of clothes while the second batch is being washed."

I saw Bella at the window and called her out.

"I want you to see this washing machine," I told her. "It sure looks good to me—and he's got a dishwasher, too."

BELLA examined the thing. The agent showed her all the ways the wringer would set, and how it was equipped with an antibite release and everything. He said he had an ironing machine too—he called it a mangle. It was heated by gasoline and run by electricity from the light plant. I remembered we had some ironing to do, and told him I would like a demonstration. He said he would whip into town and get it, and give us a demonstration that afternoon if Bella would dampen her clothes down.

Well, he did. He showed me how it worked on sheets and tablecloths. Then he ran through some shirts and things. It had a separate place to iron ruffles, neckties, and belt bindings. Bella had him run through some lace curtains, and they came out square, and not catawampus like even old Ah Fung ironed them.

However, I took down with an acute case of ingrown denseness, and could not understand all I wanted to know about how it worked till he had that whole washing ironed and folded in a big pile on the table. Then, much to his relief, I had a flash of intelligence, and agreed it was a wonderful machine.

Then he showed me that the light plant had the engine and generator built together, and that there was a belt pulley on the flywheel so that other machinery could be run at the same time the battery was being charged. I saw where I could hook on a saw to saw wood if I had a saw, and began to take notice. Then he pulled a little quarter-horsepower motor out of his car and set it up. It had three legs, and could be moved about and used anywhere there was a light socket to attach it to. It would run grindstones, cream separators, sheep shears, and everything.

I asked what [CONTINUED ON PAGE 18]

Then we decided to wash the mountain of dirty dishes left over from the day before. Bill washed and I wiped—my hands so sore and stiff that I could hardly close them

They Didn't Know Much About It
But They Liked It

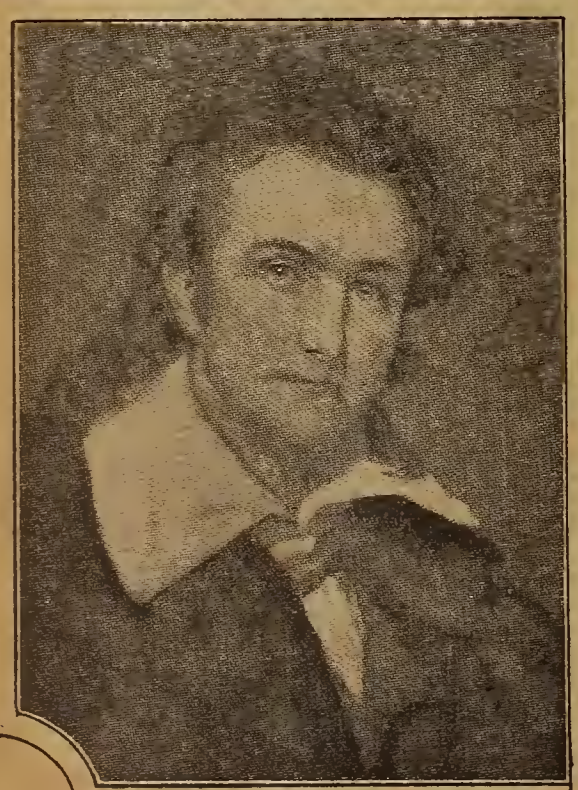
"YOU love flowers. I have a bouquet to give you—the Petit Trianon," said Louis XVI to his wife, the famous Marie Antoinette. Thus was built the most exquisite play farm ever known. Here in a wood of 800 trees, beyond the formal gardens of Versailles, the young queen and her court had their own dairy and garden and poultry, with a thatched Swiss chalet to live in. Here they served suppers, the queen herself serving her guests—an experience for her, who, according to the court etiquette, could allow no one even to sit in her presence.

FREDERICK THE GREAT, back in the eighteenth century, longed for some place where he could be really "without care," and therefore, twenty miles from Berlin, he built a little one-storied place, and called it by that name—"Sans-Souci." It doesn't seem so simple since, at his first dinner there, he had two hundred guests, but the emperor himself slept in a small room on an iron cot. Frederick in his boyhood had learned farming, and from a horse-breeding establishment of seven farms he secured an annual income of $10,000.

"MY ONLY sensation is that I am no longer alive," wrote Josephine to Napoleon from the marshy, wooded acres of her house in Navarre. When the emperor divorced her to marry Maria Louisa, he gave her this house so far from cities that she could never hear any sound of the public rejoicing at this second marriage. The house was in such disuse that the doors and windows would neither open nor shut, yet the ex-empress found here some peace and happiness. Napoleon gave her $200,000 to put the place in order, and she lived there the rest of her life.

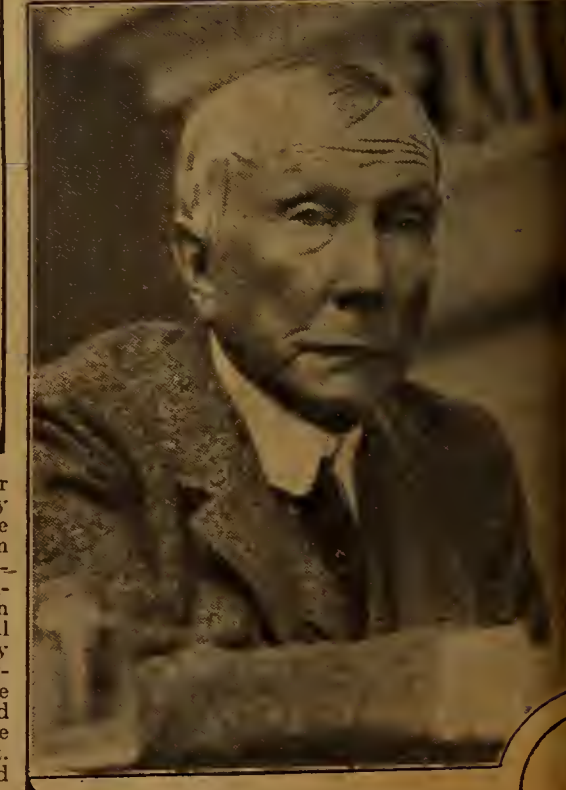
FEW women in history have had so much splendor and honor thrust unexpectedly upon them as the beautiful Empress Eugenie, wife of Napoleon III of France. As speedily as it had come, though, all her grandeur vanished, and, an exile, she found peace for the rest of her life in the English gardens and groves of Farnborough Hill—"the mansion in mourning." Here was her husband buried, and the whole place became dedicated to her brilliant past. Even the stables were used as museums for the relics of the brief, brilliant Third Empire.

ONE of the funniest, saddest things in history is the effort of great and powerful people to get for themselves a little real farm and country life. They all try it, and it always sounds like a joke. Queen Victoria thought she had it in Scotland when she "camped out" in two little huts at Bothie every year. Later she built the famous Balmoral Castle—her idea of a farmhouse—with a tower a hundred feet high, a great statue of her husband in the entrance hall, and silver milk pails in the kitchen.



A NATURALIST is the last person in the world you'd expect to succeed as a farmer. They won't plow a field if a bird has made its nest there. John J. Audubon, greatest nature student of his day, bought 40 acres at Carmansville, on the Hudson, to do some farming. The best part of his property was fenced in for deer, elk, and wolves. His orchard, 200 trees of apples, pears, plums, apricots, and nectarines, was left as a paradise for birds—it was Audubon's study. However, he had no scruples against fishing, and caught 200-pound sturgeons in the Hudson.

OF COURSE John D. Rockefeller doesn't have to depend on any fancy gardening for car fare, but the rumors that come to the world from Pocantico Hills give us a strange notion of one millionaire's idea of farming. The great pleasure of it to John D. seems to be moving trees. He'll decide that an oak on his New Jersey place would look better up in Westchester, and up it comes. Or he doesn't like his neighbor's house, and one day he has transplanted a whole wall of trees to shut out the sight of it. In this way he has actually moved thousands of big trees with success.



It Paid Me to Make My Boys Partners in Our Farm Business

By William F. Harding

A farmer who lives near Brimfield, Illinois

ABOUT ten years ago, when the increasing age and stiffening muscles made it hard for me to shoulder the load, which up to that time was mere play, I began to think of retiring from active farming. I had been farming for close on to thirty years, during which time I had bought and paid for 270 acres of the finest corn land, located at Brimfield, Illinois.

In addition to owning the farm, I had laid by enough money to keep Mrs. Harding and myself in comfort for the rest of our lives, and, with three grown sons to continue the business where I left off, I had everything in the way of material goods that is necessary to take life easier.

The idea looked very good to me, until I thought of the herd of purebred Duroc hogs that was in the process of building. Up to this time the boys hadn't had much experience with the hogs other than feeding, and, upon thinking of the multitude of things one must know in order to build up a herd such as I was doing, I decided the boys should have some real experience in all branches of the business before I could hand it over to them and feel that they were capable of carrying out what I had in mind.

My aim was to have a good herd of hogs of my own raising. There were two reasons for this: When I started out I knew little about purebreds, and to get the kind of hogs I wanted by purchase would require a lot of money. I took the alternative—that is, breeding up the hogs, by buying young stock here and there, and mating stuff which would produce an improvement over the sire and dam, both in individuality and in blood lines.

This process is sure and inexpensive, as compared with the prices of the stuff that is in demand; but it takes years to bring you to the stage where you can get reasonable prices. I knew this, and figured if I centered my efforts on this phase of the business it would only be a few years until the boys knew a whole lot more than I did at the time. Young minds more quickly grasp and understand the things the mind of a man fast approaching his allotted three score and ten must have time to think over and digest.

I BEGAN my classes, as I called them, with three boys as pupils. When I finished three years ago I had only one boy left—John. One son died; the other married, and went to farming and raising purebred hogs for himself. He is doing right well, and I expect he will be a great hog man in a few years.

Since I had the confidence of my boys, and we were more like pals than father and sons, it was easy to teach them, even though it took a long time to get them to the point where they knew enough to carry the load I wanted to unpack. The boys felt at ease around me, and were never afraid to question my opinions. I liked this attitude because it gave me a chance to make clear whatever I had in mind.

My first step was to tell them what experts said was an ideal hog—that is, according to conformation, quality, and condition. Then I took them into our own hog lot, and asked them to show me where our hogs differed as individuals from the ideal animal. They overlooked a lot of points that I knew were there, since I studied my hogs in order to breed them up to correct these weaknesses. I pointed out the places they had overlooked.

The next question was how to improve these weaknesses—that is, in the offspring. To do this, I took one of my sows and her grown pigs, and put them into a small lot. I then got the boar, and put him in an adjoining pen. Before them, then, they had sire, dam, and offspring. They told me what defects were in the dam, and then I showed them where the sire was strong in those points, and the pigs, being free from the defects, brought forcibly to mind what I was trying to teach them.

This was a mighty big step, and I didn't do it in an afternoon. In fact, it took a long time before I got over it. I made the boys study the herd as best they knew how, before I took them a step farther.

Herdbook study was the next class. I explained first what I had in mind in regard to building up the herd as cheaply as possible, by my own breeding, and told them the herdbook assisted me to the end that it told me where I could get sons and daughters of the blood lines I wanted.

I made it plain, however, that the pedigree was not everything in buying a hog. By this time I had been convinced myself that a herd boar is 90 per cent of the herd, and I told the same thing to them. I tried to picture the individual as the thing of first consideration, and the pedigree as the second point to take into the case. Our own herd easily showed them the reason for my stating this question, since, like practically all breeders, I picked up a sire with wonderful breeding, only to have him prove a failure as a producer.

Together we went over the herdbook, I telling them what I hoped to do with the herd; in the way of introducing the blood of certain sires and dams which were famous and bringing good prices. We looked up the family lines of several boars I had in mind, and together traced down offspring to breeders who would sell pigs at reasonable prices, and yet who were making rapid strides in the business, and working to make a name for their herd.

I told them one could afford to pay a little more if the individual was the right type, because, when this man made a reputation for himself perhaps in a year or two, his blood lines would become famous, and this selfsame medium—the herdbook—would show that William F. Harding & Sons had the blood in their herd, thus adding something to the value of each hog.

Learning blood lines, and getting acquainted with the various breeders and their reputations, was not completed in a night, either. It took me a long time to state the question, and even now John readily admits he doesn't know as much as he would like to. However, he is still learning, but he knows enough to handle the reins, and to continue what I started.

After they began to get the point, I took them to various state fairs and livestock shows, to see the way the judges were placing the ribbons on red hogs, and to study from a close-up the types which different breeders found were in demand. This, in itself, was a great lesson, for at several of the shows the boys had a chance to see and study the best herds in the Duroc fraternity.

This information brought them down to where they were nearly ready to "carry on." The big thing, however, was left, and this was the actual buying of stuff intended to improve the herd.

I HAD taken the boys with me on several trips that I made when buying, and they were pretty well acquainted with the type I wanted and the price I was willing and could afford to pay. Of course, there is always a limit a man can pay for a hog, but I made it strong to the boys never to let a dollar or two stand in the way of their buying something which, in a year or two, would yield many times the extra expenditure.

At this point I figured the time was ripe for them to do the buying, so the next time they went out alone. I didn't give them any instructions, for they knew what was wanted, and it was up to them to get it. Of course, they made a few mistakes, but nothing that really amounted to anything; and I was quick to compliment them on the ability they displayed.

They were now ready to shift for themselves, so I handed over the reins and moved to town. I am proud to say that John has been doing even better than I would have done myself. Not only is he a good hog man, but a good sensible farmer, and he is making a success of the whole business.

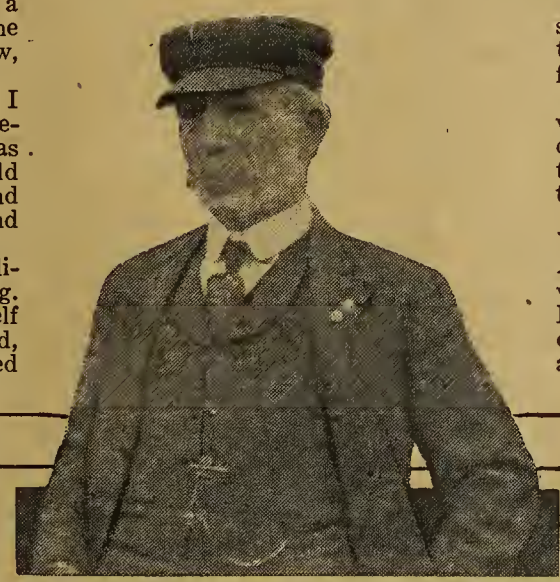
As I look back now, I say it was possible to keep the boys on the farm, and to teach them the hog business, because they were pals of mine. If I had it to do over again, I would have started them sooner; and I surely would have been more of a companion than I have been. I started to make friends with my sons when they began to crawl about the floor. I played with them at all times, even though I was dog-tired after a hard day in the fields.

A MAN who does this, perhaps only for an hour or so, will have boys that think more of him in the end. The trouble with fathers, as I see it, is that they don't get to know their children. In order to maintain discipline, they keep to themselves. I don't believe in this method. Mine was to make them pals, and even in doing so I maintained discipline. Early I taught the boys to observe my word, and that it was law. If I said "no" on any proposition, it meant just that; and when I wanted to stop play, they knew I meant to quit. I believe they now thank me for it.

Realizing that a boy must have amusement and pleasure, I never stood in their way; in fact, whenever possible I went with them. I enjoy a social, movie, play, or anything else just so long as it is clean and wholesome; and I tried to teach the boys that this was the only kind of amusement.

The amusements of our home town were not our limits. We often made trips to Peoria, in the car, and attended good shows, the circus, or something of the kind. It was just as good for Mrs. Harding and myself as it was for the boys, and this companionship taught them to desire no amusement to which they could not invite their father and mother.

And, when you come right down to the point, if a man is [CONTINUED ON PAGE 12]



This is W. F. Harding, who turned his farm near Brimfield, Illinois, over to his boys after putting them through a personally conducted course in practical farming and hog-breeding

He Wouldn't Ruin His Reputation for a Bale of Hay

WILLIAM F. HARDING of Brimfield, Illinois, has a reputation of being a good hog man. That he is a good father goes without saying; all one has to do is to talk to his sons, visit his farm, or watch him work. Harding has retired to town, but still he lends a hand now and then, merely to give himself something to do. Active operation and management of the farm and herd is in the hands of his son John, who is married, and lives on the farm.

Harding is known among hog men as being 100 per cent honest, and an incident that bears out this opinion occurred sometime ago, when he was superintending the loading of a car of hay for market. The hired men didn't bring in enough bales to fill the car, it being shy one to ride easy. A trip back to the farm, some five miles, for a single bale was out of the question, so Harding decided to borrow one from a farmer living near the railroad siding.

The farmer had only threshed timothy, but it was decided to use it anyhow. The hired men wanted to pull out a few bales, and to conceal this poor bale inside; but Harding, after debating whether or not to put it in the car at all, decided he would, to make it ride easier, and then hurried home to write the commission man telling him of the bale, its location right inside the door, and why it was put in.

"I can't afford to ruin my reputation for a bale of hay," he said. "The commission men know my stuff to be as I represent it, and this would lead them to think I was dishonest."

At the age of twenty-four, Harding married and started farming for himself. Without funds, he borrowed $2,400 from his father, and bought 112 acres of the present 270-acre farm that he now owns. After he finished paying for the first batch, he added a little at a time, borrowing money when he needed it. His bankers say he is a first-class risk, and are always willing to supply money if he should need it.

Harding is well fixed, having made a lot of money out of farming and purebred hogs. He doesn't need his share of the partnership, but still likes to have some active connection with the farm.

He was born in Peoria County, Illinois, and was one of the first farmers to start raising purebred hogs. THE EDITOR.

John Harding has taken up his father's work where he left off, and is now successfully managing the home farm. John's brother owns a farm in the same vicinity

Sam Carter Helped His Bank by Showing Farmers How to Make Money

By A. I. Foard

Who is county agent of Scott County, Missouri

LESS than five years ago the large majority of farmers in the district surrounding Cape Girardeau, Missouri, hardly knew the real meaning of the words "modern dairying." They'd heard about it; knew there were such animals as purebred dairy cows, and perhaps envied men who made money from a combination of both, and wished they too could do it.

All this time they were allowing outside dairymen to ship cream right into their own territory, and practically carry off the proceeds of a home market. Just about that time, S. M. Carter, secretary of the Southeast Missouri Trust Company at Cape Girardeau, began to take particular notice of the money being taken away from home—money which, if kept in the community, perhaps might be deposited in his bank—and got busy. His idea was not only to help his bank, but also to keep and build up prosperity at home.

Recently I visited Carter, or Sam as he is known to his farmer friends, and it didn't take him long to show me that some wonderful changes had been brought about in the past few years. From a community with no dairy standing at all, the Cape Girardeau district, comprising a portion of Scott and Cape Girardeau counties, has become the leading Guernsey cattle center of a territory including Missouri and several surrounding States. And, although Carter didn't tell much himself, I learned that, while the credit for the marvelous improvement can be divided among several men, it was Carter who started the ball rolling. As one man told me, in a round-about way of complimenting him:

"Well, Sam Carter got me off up to Wisconsin on a dairy trip, and it made a fool of me." But he grinned as he said it.

I found Carter in his office at the bank. His desk was literally covered with pamphlets, catalogues, and bulletins on Guernsey cattle—strange literature, I thought, to be found decorating the desk of a bank secretary. I must have remarked about it; anyway, he explained, and I saw the light.

Not only is Carter an expert on banking matters, but now is a sort of general adviser on dairy matters. Every day he is visited by farmers who come to tell him about some favorite cow of theirs, or to get advice on feeding rations, or perhaps to discuss some recent development in connection with their dairy business.

Yet, five years ago, he couldn't tell the difference between a dairy cow and a beef animal—and admits it.

AFTER some maneuvering I finally got Carter to talk about his work. It seems he started out with very modest ambitions; but his first venture, the organizing of an imported Guernsey calf club, outgrew even his fondest hopes. But I'll let him tell you in his own words how it all came about:

"Almost five years ago, Fred Naeter, editor of our daily paper; I. Ben Miller, the leading ice-cream manufacturer in this section; Rev. A. M. Lohman, pastor of the church at Egypt Mills, nine miles north of here; F. E. McDonald, a practical farmer and livestock man, and I got together with the idea of working out a plan to put our farmers on the dairy map. Each of us boosted modern dairying and purebred stock in our own particular field, and between us we gave the idea a good bit of publicity. We couldn't seem to work out a definite plan of action, but I did get the officers of our bank to let me go up to Wisconsin and look around some of the dairying sections there.

"I went to Fort Atkinson, and spent several days driving through the country looking at the dairy herds and talking to dairymen. The business looked big to me. The farmers up there looked no brainier than my friends back home, and their land closely resembled ours.

"I came back bursting with enthusiasm, and talked dairying to everybody I met, telling them what I had seen and been told, and what I thought we folks at home could do to equal it. The next year I spent my vacation in Wisconsin, trying to take in the whole State, and when I came back I wrote a series of articles about my trip for the daily papers. A little later I talked nine men, some of them business men and some farmers, into going back with me. None of them went with the idea of buying, but when we returned we brought five Guernseys with us. That was what put my idea over—taking these men to see a *real* dairy country.

"The calf club was an outgrowth of this. I started out with the idea of selling ten head to be imported from the Guernsey Isle. I wanted to collect $125 from each member, and induce him to sign a contract agreeing to pay more if necessary. I thought it was going to be hard to do that much, but before I had finished I had enrolled 45 members. It took fifty-one days for the 45 calves to reach Cape Girardeau from their native home, and when delivered they cost $156 each. As far as I've heard, I guess this made the biggest imported club of its kind.

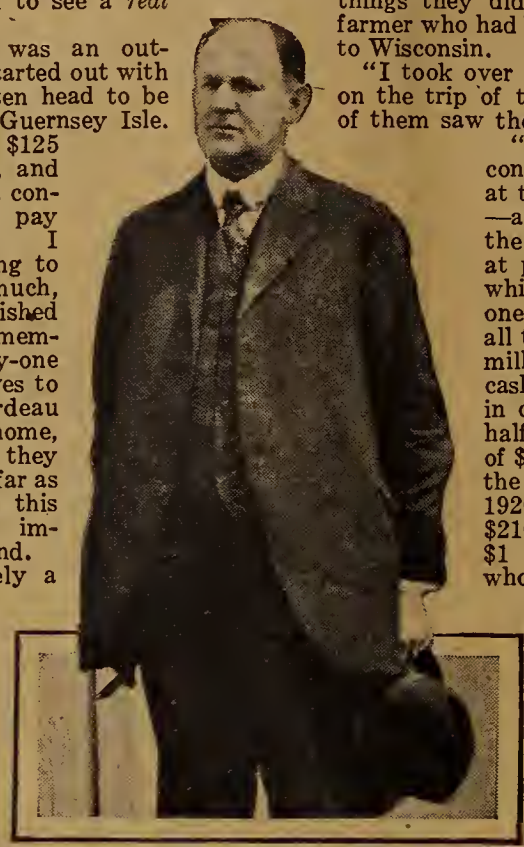
"They were surely a sad-looking bunch when they arrived. I felt almost criminal in taking the money, and would almost have been in sympathy with the farmers if they had mobbed me. But peace reigned, as the saying goes, and the hungry-looking immigrants were finally allotted to their disappointed and sullen buyers. One man picked up his little woe-begone prize and disgustedly threw it in the back of his car, and drove home mad as an owl. That same man, if he thought he was buncoed then, has changed his mind, for inside of a year I sold his calf for him for $250.

"Shortly after this episode we got down to business, and started to do things in a big way. Through our commercial club in Cape Girardeau we organized the Egypt Mills Guernsey Club, Inc., with a capital stock of $20,000, most of which was sold to our business men in town. The money was put in registered Guernsey cows and a registered bull. The cows were to be the property of the company, and let out to farmers who had to take $100 worth of stock for each cow they got. Most of the farmers who signed up live around Egypt Mills, probably due to the great work of Rev. Lohman in boosting the project.

"A board of directors, composed of five men, was appointed, and one of the first things they did was to send every farmer who had bought stock on a trip to Wisconsin.

"I took over twenty of these men on the trip of their lives, and some of them saw their first Guernseys.

"The company is to continue for five years, at the end of which time—and that time is near—the cattle are to be sold at public auction. But while the farmer keeps one of the cows he gets all the proceeds from the milk, and one half of the cash value of her increase in calves. He pays one half of the breeding fee of $10, and the club pays the balance. This year, 1920, our bull has earned $210 over and above the $1 a day paid the man who takes care of him. All heifer calves are held by the farmer keeping the cows, and all bull calves are sold at auction once a year. Should a cow die, as three so far have done, it is optional with the board of directors how the loss shall be handled."



This is Sam Carter, banker, of Cape Girardeau, Missouri, who has helped make over a commonplace community into one of the foremost dairying centers of Missouri. Yet, five years ago, he didn't know the difference between a dairy cow and a beef animal—and admits it

At this point I interrupted Mr. Carter to ask why they chose the Guernsey breed.

"In the first place," he answered, "we have a local market here in Cape Girardeau for sweet cream. The Miller ice-cream factory, one of the largest in the State, pays from eight to ten cents above the market price for butterfat in the form of sweet cream. We have a creamery here, too. With these home markets we naturally wanted cream to sell, so that limited us to either the Guernsey or Jersey. Then, when our farmers visited those Wisconsin dairies, and the Guernseys followed them around like pet kittens while the Jerseys shied off—that settled it.

"WE GOT in touch with Charles L. Hill of Fond du Lac, Wisconsin, one of the leading Guernsey authorities in the country, and he assisted us in locating forty-two bred heifers and cows, nineteen of them imported stock direct from the Isle of Guernsey. These cows cost on an average of $377 a head. Then we paid $1,000 for a bull, Eminent of Sarina No. 32963. We have just refused $3,500 for him."

While these figures represent some of the direct belongings of the clubs Carter has been instrumental in forming, there are many small Guernsey herds in the community which individual farmers not in the clubs have purchased after seeing the success of the community projects. Right now there are over 300 head of registered Guernseys in a radius of a few miles of Cape Girardeau, and equally as many grade Guernseys — and they're just getting started.

To show these farmers he was in earnest, Carter went into the Guernsey business too. He evinced great delight in taking me out to his four-acre place just outside of the city limits, where he has a beautiful suburban home and keeps six Guernseys. As we entered the little pasture where they were grazing, they came running to us in a most friendly fashion, and rubbed their noses against us. Pointing to one beautiful spotted heifer, Carter said:

"That calf is worth $100 more to-day than she was yesterday, because she has lost a wart she had on her neck. I wouldn't take $2,000 for this bunch."

Mary Helen, Carter's daughter, said he hadn't better, because one of the herd belongs to her, as she drew it as a member of the imported calf club.

TO GIVE me an idea of how the farmers were taking to the improved ways, Carter invited me to enter his car, and we went to visit several of the leading dairymen.

We first called on F. E. McDonald, near Egypt Mills, and saw his herd of fifteen imported Guernsey heifers. He said at first he thought Carter was going into the game for purely personal gain, but soon discovered he was pushing dairying for the good of the whole community. In speaking of his trip to Wisconsin he said:

"While those Wisconsin fellows have us all skinned to pieces just now, we've got it on them in climate. To begin with, our soil is just as good as theirs, and we have a two-months longer grazing season than they have. If they can make money out of it, we surely ought to. I only wish I were thirty years younger, but my two boys are going to be real dairymen."

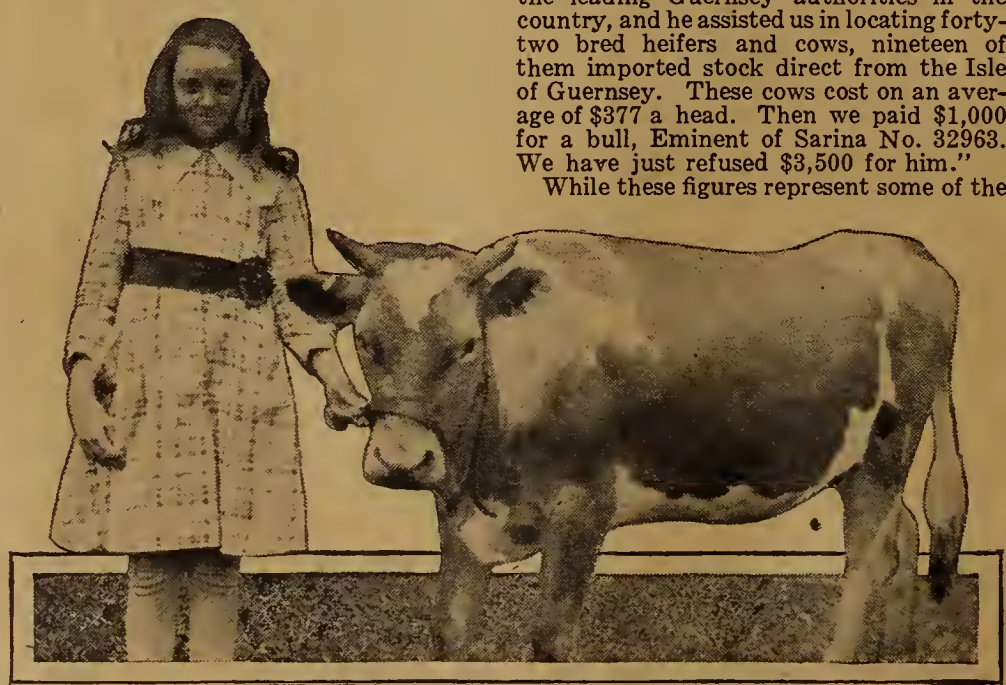
We next drove over to Charles Weiss' farm. He was the first man in the whole community really to get into the dairy business, and his place is fast taking on an air of prosperity. He is milking 25 cows, and has the record of being the luckiest man in the district—during the past year his percentage of heifer calves to bull calves has been 15 to 1. He has made over his horse barn into a dairy barn, and has installed modern equipment. He sells sweet cream, gets the top prices, and says he is going to make over his 500-acre farm into a dairy plant just as rapidly as he can. Weiss is an absolute believer in purebreds, and told me he intended to get rid of every grade animal he has, within another year.

Among others, we visited the farm of William Koerber. He has only seven cows, but he sells whole milk, taking it to town every morning, where he gets 50 cents a gallon and sells around $10 worth a day. As we entered his lot, he pointed to a young heifer:

"She's a good one, all right," he said. "Look at that nose!"

I REPEAT his words here just to give you an idea of how the men we talked to are taking on the ear marks of regular dairymen. During our visits I heard a lot about noses, yellow ears, thin withers, protuberant points, and long-winded pedigrees with big names and bigger numbers.

Back in town I talked with I. Ben Miller, the ice-cream man. He told me that in one month, recently, he paid $3,000 to local dairymen for their cream, compared to $500 for the same month three years ago. At the time I talked to him he was paying 72 cents a pound for butterfat. He still ships most of his cream in from Illinois and the surrounding territory, but said it would be only a matter of a few years, if the Guernsey business keeps going, before the farmers around Cape Girardeau would supply his demands. He is now building a model dairy barn [CONTINUED ON PAGE 24]



And here is Mary Helen, Sam Carter's daughter, with her very own Guernsey, one of the first purebred dairy cows to be introduced into Cape Girardeau farming circles. She drew it in the imported calf club when her father imported 45 heifer calves from the Guernsey Isle, his first venture in dairy promotion

Why Every Month is Canning Season With Me

By Nell B. Nichols

Corresponding Editor for Farm and Fireside on Household Matters

I FIND that by extending the canning season from summer to fall, and then into winter, I make my housework easier. It's an excellent method of distributing the tasks more evenly and of relieving pressure during the busy, hot weather.

It may sound amusing to you to hear of a housekeeper planning her canning operations for the winter season. It was not common practice a few years ago. When I first told a neighbor of my desire to can food in every season of the year, she smiled—the kind one lets flicker across the face when he is not sold on your ideas.

"Who ever heard of canning in winter?" she asked.

"Well," said I, "for instance, if it is poor judgment to can pumpkin in early winter, when it is sweetest, for use in pies during late spring and summer; cranberries when they are in season; onions before they sprout, losing their desirable flavor; sweet potatoes before they rot, and parsnips when their taste is richest, it is not common sense to can peas, peaches, and plums in summer-time, when they are seasonable."

I FIND that carrying out my around-the-year canning schedule is fun, as well as profitable. I always make a couple of glasses of jelly from canned fruit juices the day before Christmas, and carry them, while warm, in holly-decorated packages to my once doubting neighbor. One fourth of July she and her family ate delicious pumpkin pies—the pumpkin I had put up in December. Another year I sent her a can of cranberry juice to be utilized in making a water ice to serve with the season's first fried chicken.

From month to month new reasons, justifying the wisdom of canning during late autumn and winter, are brought to my attention. And here are some of them:

1. Many vegetables and a few fruits are at their best during these winter months.
2. Canning in cool weather is much more comfortable than in summer-time, when the mercury is climbing.
3. More time is available for the work. The children are off at school, the young chicks have grown up, the garden needs little or no attention, and with not so many men in the field there is less cooking to do.
4. It is an economical use of cans, this canning throughout the year. Some of the jars filled in early spring and summer are emptied, and these may be used in canning the fall and winter products. Moreover, the fuel used serves a dual purpose, warming the room and providing heat for canning.
5. Instead of feeding and caring for the unprofitable hens during the winter, it is wise to cull the flocks some time before cold weather sets in. The surplus of fowls may be canned to advantage. Likewise, butchering comes in cool weather, and no person doubts the advisability of preserving the meat which cannot be used immediately.

Calling the roll of the fall vegetables which may be kept in cans for use in spring and summer is convincing proof of the wisdom of canning them. The queen of them all is the tomato, which is at its best in greatest abundance during early Indian summer. The last of the corn, string beans, and sweet peppers is with many of us. Somewhat later cauliflower, cabbage, squash, pumpkin, carrots, parsnips, sweet potatoes, sauerkraut, and hominy are found on most farms, awaiting the canner.

THEN there are the meats which may be successfully canned, particularly when pressure canners are used. I know of no greater comfort than that which comes from knowing there are cans of delicious fried chicken, rabbit, roast beef, pork, and mutton in the pantry, ready for use when unexpected guests come, and for the day when there is illness and it is difficult to find time to prepare dinner for the men.

After making jelly in the winter, tasting of the newly cooked product and discovering how easy it is to boil up two or three glasses at a time, I resolved to have fruit juices on hand, whenever possible, for this purpose. Of course, grapes are about the only fall fruit from which one cares to extract the juice for winter and spring uses, but in summer I always hurriedly can the juices of raspberries, blackberries, strawberries, currants, elderberries, and cherries. It is easy to get them put away in warm weather if jelly is not made then.

Believing many of you may wish to can grape juice and some of the others from year to year, I am giving the directions which I follow:

A small amount of water is added to the fruit; this is brought to a boil and allowed to simmer gently for a very few minutes. Then the juice is strained through two layers of cheesecloth into clean jars or bottles, which have been boiled in water fifteen minutes. These are placed on a false bottom in a large kettle, and sufficient warm water is poured around them to reach the shoulders of the jars and the necks of the bottles. If jars are used, the lids are half sealed, while either a piece of cotton or a cork, which has been boiled, is inserted loosely in the bottles.

THIS fruit juice is processed thirty minutes, the water around it being kept simmering all the time. When the jars are removed, the lids are tightened immediately, while the cotton stoppers are removed from the bottles, and tightly fitting corks, which have been boiled, are put in. When the bottles are cold, the tops are dipped in melted paraffin. I use these juices not only for jelly-making, but also for puddings and sauces, ice cream, sherbet, gelatin dishes, and other desserts. [CONTINUED ON PAGE 34]

Miss Gould Likes This Dress

"It's smart," she says, "and as easy to make as a wrapper"

IF YOU want smartness in style, comfort in wear, and ease and quickness in the making, here's the dress for you. Take a look at it in the picture. It's simple and straight-hanging—so simple that it really looks like a wrapper. But that's before the over panel is put on. It's this panel that has much to do with the chic look of the dress, though the sleeves, perhaps, are its very newest feature. They have the new bell flare and the long shoulder effect. The panel, which is cut in one with the belt, fastens to a round collar. It opens at the shoulder, while the dress opens at the center front under the panel. Really, the making of the dress is just a matter of sewing the lower portion of the sleeve to the drop shoulder section and closing the underarm seams. After this, all you have to do is to finish the neck and tack on the panel.

This good-looking dress emphasizes the new silhouette which Mme. Jenny of Paris launched when she introduced her wide sleeves. One thing that I particularly like about this model is that it is equally adaptable for everyday or best wear. It is really all a matter of fabric and trimming. If you want to use the pattern for an everyday dress, then I'd make it of navy-blue or java-brown tricotine or twill. And I'd trim the outer edges of the panel, the collar, and the sleeves with black soutache braid. It would be such a serviceable dress made up this way. If you need a best frock too, you will find the pattern equally useful. It would look most charming developed in Canton crêpe or one of the very new crêpe fabrics known as snowkrepe, which has just the suggestion of silky duvetyn. In a rich wine-red, a coppery tone, a lovely old Colonial blue, or the very fashionable black, the dress would look very smart trimmed with black ciré ribbon. A narrow fold of the ribbon could be used, or it could be applied in little flutings, one of the new trimming ideas of the season. Chenille as a trimming is also very fashionable.

It is used in straight bands and also to form motifs. If your dress is trimmed with chenille, it's a very new and smart idea to introduce the chenille on your hat, especially if the hat is made of the same fabric as the dress. Jetted bands are another modish trimming. In fact, there is really a craze for jet. Some of the satin and duvetyn hats have the crown studded with jet nail heads. Jet bead necklaces are much worn, and also black cords from which are suspended jet medallions.

If you have any dressmaking problems and want to talk them over with someone, why not write Miss Gould? She will be glad to help you. Send a self-addressed stamped envelope for reply. Address Grace Margaret Gould, FARM AND FIRESIDE, *381 Fourth Avenue, New York City.*

THIS smart-looking dress, which is as easy to make as a wrapper, can be cut from pattern No. FF-4092—Straight-Hanging Dress with Panel and Belt in One. Sizes, 34 to 42 bust. Width at lower edge in size 36, one and five-eighths yards. Price of pattern, thirty cents. If you need a dress in a hurry, let me suggest that you order this pattern, for it all goes together in such a simple way. Send order to Pattern Department, Farm and Fireside, 381 Fourth Ave., New York.

How to Improve Your Weather-Beaten Face

IS THERE a garden in your face, where roses and lilies grow, as the old-time quotation says? If there isn't, I know you're sorry. I know you would like roses in your cheeks and your skin velvety soft like a flower petal. So I say, about now when you are thinking of getting your garden ready for the winter, protecting your roses from the frost, looking out for the tender little bulbs, pruning and cutting, why not give a little extra care to the flower garden of your body—your face?

It's tanned and withered and burned, I'm afraid. It shows traces of long dusty automobile rides, happy-go-lucky picnics, and the day-in-and-day-out work around the place in the good old summer-time. It needs soothing, freshening, refining.

Let's see what we can do about it: Perhaps your skin isn't breathing right. Perhaps the pores are clogged; perhaps you have blackheads. Well, don't let it disturb you, for I know of a paste that very quickly improves any unhealthy condition of the pores. It's such a soothing paste, too, and is an excellent remedy for pimples and blotches, as well as blackheads. You use it at night and let it remain on the face until morning. Then wash off with a good astringent lotion.

Be sure to get an astringent that will agree with your skin. I can't tell you which one to select. You will have to try them out yourself. But those that are made of herbs and have a distinct tonic quality that tones and firms the tissues are specially satisfactory in their results.

A good way to apply an astringent is with a pad of absorbent cotton. Pat it [CONTINUED ON PAGE 35]

You
Hit It Right
when You wear
CROMPTON
"All-Weather"
CORDUROYS

The Ideal
Outdoor Fabric
for Men and Boys

Comfortable, Neat, Durable and *Economical*, and, in addition, there's the remarkable "*All-Weather*" feature which makes every fibre resistant to water, wear and weather.

A light shower will not penetrate it. Even a severe drenching merely forces water into the meshes of the cloth, from which it is easily shaken, and the fabric dries quickly without shrinking or stiffening.

Some Garments made of
CROMPTON
"All-Weather"
CORDUROY
Men's Pants Men's Suits
Boys' Pants
Boys' Suits
Boys' Knickerbockers
Hunting Suits
Fishing Suits Sport Coats
Sheepskin-Lined Coats
Men's and Boys' Caps
Riding Breeches
Motorcycle Suits
Uniforms

Work or Play
Rain or Shine
CROMPTON
"All-Weather"
CORDUROY
Is Best

At Your Clothing Store
there is an interesting little booklet,
"The Economy of Corduroy,"
printed especially for you. Ask for it.

CROMPTON-RICHMOND CO., Inc.
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THE FAMOUS
"All-Weather" TEST
Water poured on
CROMPTON
"All-Weather"
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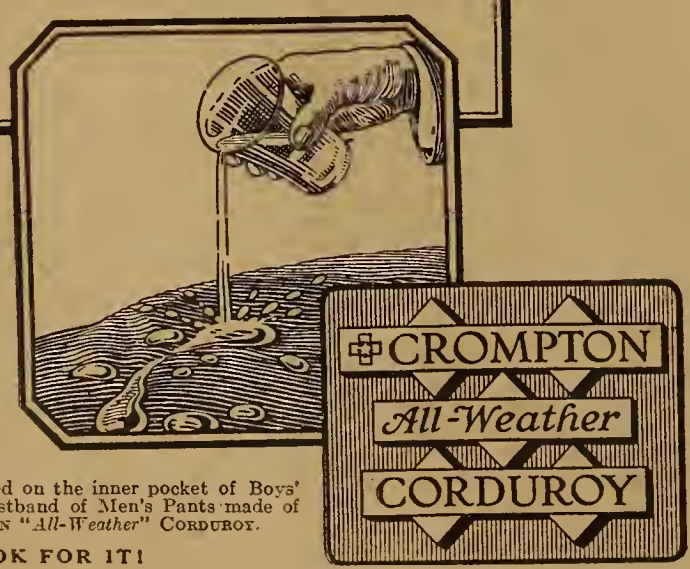
from a height of a foot or more rolls off instantly.
A shake of the cloth and there is no trace of moisture.
Ask your Clothing Salesman to show you the TEST.



THIS LABEL is sewed on the inner pocket of Boys' Suits and on the waistband of Men's Pants made of the genuine CROMPTON "All-Weather" CORDUROY.

LOOK FOR IT!

Our Truck Beats Horses

By Russell Adams of Oklahoma

"WHAT is the most profitable piece of equipment on your farm?" is a question frequently asked by county agents, federal extension men, and others interested in modern farming.

After careful thought I have arrived at the conclusion that there is but one answer to the question as applied to our farm—the motor truck.

For thousands of years the problem of successfully marketing farm products remained unsolved. The farmer produced with hope, but marketed in despair. As a rule, he was greatly hampered by the many miles which separated him from an active market; the result was that he sold his stuff to the nearest dealer, and often was neatly trimmed in the transaction.

To a great extent the motor truck on the farm has remedied that evil. To-day the motorized farm can be likened to a farm upon which there is a railroad station.

The possession of a truck gives the owner a choice of markets; he can deliver his product to the market offering him the most profit.

A TWO-TON truck travels four times as fast as the average team. One man with a two-ton truck can haul as much in the same length of time as can four men, four wagons, and eight horses.

Our specialty is alfalfa hay and seed, and our shipping point is three and a half miles away—a much shorter haul than the average. By the team method of delivery it costs $1.30 a ton for each ton placed in a car at shipping point. By motor-truck delivery, and with every item of upkeep figured, it costs us 73 cents for each ton handled.

Around a thriving city, twenty-five miles away, there are a number of dairy farms which are always in the market for choice alfalfa hay. It is simply impossible to deliver hay to these farms by team and realize a profit, but with a truck it is different; twenty-five miles by truck is practically the same as six miles by team.

By opening up better markets for practically all farm products, the motor truck increases the value of land, for the richest soil ever created is absolutely without value if its product cannot be marketed at a profit.

By having a reliable truck on our farm, we can take advantage of a sharp demand for our products that may exist a hundred miles away. We try to find markets where competition for the products we sell exists.

HAVING had considerable experience with various sizes and makes of farm trucks, the following things I have learned may be of some assistance to you:

In trucks, as in everything else, the cheapest in first cost is seldom the cheapest in the end.

When buying a truck for farm use it is wise to select one built especially for country roads and country loads.

By building your own truck body you can save from $50 to $100, and carry out your own idea of what a truck body should be. If you build for permanence, do not use a nail in the whole job; nails soon work loose or break and give a world of bother. Use quarter-inch bolts in place of nails.

Pneumatic tires give much better satisfaction.

The stitch-in-time policy is an excellent one to apply to motor trucks. Ten minutes devoted to an inspection twice each day the truck is in use will practically insure you against serious trouble. Ninety per cent of all truck trouble can be directly traced to carelessness.

If a truck meets with an accident, it can always be made new, but you can't repair a dead horse with a screw driver and a monkey wrench.

And please remember this: Just because your truck is a willing worker, do not overload it. Overloading takes a heavy toll in tire costs, and is never profitable.

Use nothing but the best oil in crank case, and change often; oil soon loses its lubricating qualities when used in a heavy-duty motor pulling its regular load.

The farther you live from market the greater your need for a good farm truck.

NOTE: There are profitable places for many more motor trucks on farms. If interested in learning more about them, we will take care of your questions. THE EDITOR.

How I Save My New Trees

SOME of us farmers are apt to blame the nurseryman if we set out an apple tree and it dies. Sometimes it *is* the fault of the nursery, but *usually* the trouble lies with the man who handles the tree.

One of the best plans to prevent tree loss is puddling the roots in a clay mud. I have used this frequently, and it often makes a tree live which otherwise would die.

Some years ago I took the contract of supplying 50 evergreen trees for a local park. This park was located on a very stony sand ridge. It was a job to get any trees to live. But by making a clay puddle, and sticking the roots of the evergreens in it before planting, I was able to get almost every tree to grow.

I can't explain just why this method proves effective in so many cases, but the fact remains that it does. It gives protection to the roots, which seems to give them more time to adapt themselves to the new soil. Dip the whole root system in the clay mud, and also the trunk a little past where the tree set in the nursery. It is wise to prune the roots off as wanted, before dipping. EARL ROGERS, OHIO.

My Boys My Partners

[CONTINUED FROM PAGE 9]

clean in his sport he is clean in his business dealings. Anyone who is fair in his treatment of others cannot help but succeed, because it means right thinking and farming.

I could have made more out of the hog business by unbusinesslike methods, but I was always satisfied with fair prices and profits. I never got away from the idea that the purebred hog business was built upon the pork barrel. This is something our breeders have been forgetting, but we cannot get ahead if we lose sight of it.

I never had any $1,000 hogs, and I am glad that I did not. True, I might have made more money selling high-priced hogs, but in the end I would hardly have my boys on the farm. If they had become used to $1,000 hogs, when values contracted, as they have at present, they might have become dissatisfied, saying the business was going to ruin and they wanted to get out of it.

For years I have maintained that if breeders would devote their efforts to getting new men into the business, rather than scheming ways and means to establish sensational prices and sales, it would by far do the purebred industry a whole lot more good. We see it very plainly now, and I hope the lesson will not be lost on us.

In my way of thinking, there is not a hog in the world worth $1,000 for pork; and, since our business is based upon the pork barrel, it is unlikely that there is a purebred worth that money. Instead of advertising these sensations, we should show the man who has scrub hogs where, by using better breeding stock, he could make his pigs 50 pounds heavier with the same amount of feed and in quicker time.

Over
600,000
owners

DODGE BROTHERS
MOTOR CARS

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Rough-Feed Cutting—and Goodyear Belts

Every Fall, for nearly twenty years of farming, Nick Lecheler, of Elmwood, Wisconsin, put up with the usual troubles that ordinary belting gives in the cutting and storing of feed for stock. Ensilage-cutting, silo-filling, dry-fodder cutting, feed-grinding, there had been one round of breaking in new belts, putting back belts that had jumped the pulleys, messing with dressings, re-setting engines to meet shrinkage or stretching, postponing rush work because the belt didn't like the weather, and replacing belts that wore out before they gave anything like good value.

He put an end to belt troubles when he bought a Goodyear Klingtite Belt. It needed no breaking-in. From the very first, it ran loosely, flexibly, with that powerful clinging grip that no other farm belt maintains.

Mr. Lecheler got his Goodyear Klingtite Belt from his local Goodyear Dealer. Before the particular length, width and ply were determined on, the Goodyear man studied the cutter, advised certain pulley changes, and fitted the belt exactly to the machine.

It has been exposed to sudden changes in the weather, yet the Goodyear Klingtite Belt has neither shrunk nor stretched. Its free-running action has always favored the engine bearings—an advantage that Mr. Lecheler appreciates all the more since the belt he had, just before the Klingtite, dried up and wore out a set of engine bearings because of the tense strain it put on the pulleys.

It has solved the problem of power transmission on the Lecheler farm as on thousands of others. It carries the full power load evenly in heavy duty. Its long life—this particular Klingtite was in its third year of service when the accompanying photograph was taken—is a matter of its staunch materials and scientific ply construction. The time that it saves its owner by its trouble-free performance is valuable time gained for other work.

Goodyear Klingtite Belts are made in endless type for threshing, silo-filling, feed-cutting, wood-sawing and other major farm power operations. They also come in suitable lengths for use on water-pumping, electric-lighting plant, cream separator, churn and washing-machine drives. Wherever they are used, they are known among farmers as the best help on the farm. Goodyear also makes Spray Hose. For further information about Goodyear products for the farm, and for a free copy of the Goodyear Farm Encyclopedia, write to The Goodyear Tire & Rubber Company, Akron, Ohio, or Los Angeles, California.

GOODYEAR

The Way My Father Farmed

[CONTINUED FROM PAGE 4]

overcoats and drying boots, baking biscuits and rying the home-made sausages. For we all ate enormously. Everyone was burning all the fuel he could stoke in just then.

It was an experience of a lifetime, but throughout the storm my father was as happy as a boy at a skating party. He fairly reveled in it. Doubtless he knew what the storm was costing him, but it was one of the incidents of feeding cattle on the prairies. That was the way he used to grow beef to sell at three-sixty on the hoof.

Besides beef he raised pork. Of course, the system requires hogs to follow the steers. He really cared more for the pigs, too. For, while he bought and fed cattle, he bred pigs. He brought the first purebred Berkshire boar into that section, and used to take great pride in the smooth, even shoates in his pens. They were indeed something of a novelty in that time when nondescript, raw-boned "hawgs" were the usual encounter—almost anything between a rail splitter and civilization.

THEN one year, I remember, hogs took a sudden jump. They went up to $6 a hundred—a quite unheard-of price, and Father had nearly a car lot to sell. That was the summer that Mother went "back East" to visit her sister and the old neighbors. For years Father played the game in the hope of another flurry like that; but when the time came to sell, and he had to take three-eighty or three-forty-five, he used to make the best of it. He would shine with pride in the quality of his Berkshire grades, and would not fail to exult over the time when he sold out at six.

Primarily this was a grain farm. It was on the western edge of the "Golden Belt," just between the most famous wheat country and the short grass. Wheat was the first and foremost money crop.

Money crop did I call it? Would the present-day farmer call it a money proposition to grow 20 bushels of wheat to the acre and haul it 40 miles to market for 50 cents a bushel? Yet that same thing happened more than once. One year, in particular, there were heavy rains immediately after harvest. The stacks were soaked. The wheat sprouted in the stack. It was threshed while it was half-wet—half-threshed, that is. It was put into extemporized granaries where it promptly heated, burnt, or molded. Some of this wheat sold at the railroad 40 miles distant as low as 21 cents, and some of it, I think, didn't sell at all. We had bread at home made of it—flour ground and toll taken at the mill 14 miles away—and it was something to remember. A hungry boy could hardly eat it even when it was covered all over with sorghum molasses.

FATHER studied wheat production as few men in Kansas up to that time had studied it. He made some improvements of his own in field management. He was one of the first to grow Turkey wheat; and when the U. S. Commissioner of Agriculture (there wasn't any U. S. D. A. in those days) imported a new variety of red wheat from Russia, he was the first man in Kansas to test it. He worked up quite a stock of it; but it was adapted to regions farther north, and so it soon disappeared from his farm.

He grew corn, too; and for many years, while neighbors were wasting the entire fodder crop, letting it stand in the field to be plowed under, he used to cut his corn and feed it out, fodder and grain, in the feed racks.

Another thing he knew, too, which the frontier farmer of the day didn't even suspect. That was that there was more nutriment and more palatability in fodder cut fresh and green than after the hot winds of August had withered it, and the chinch bugs sapped it, and the early frost frozen it. That doesn't look like a great scientific discovery to-day. And yet it was as far ahead of the times as is to-day the proposition of living without battleships.

All this was, as I have said, before the days of alfalfa. Yet my Father bought alfalfa seed of a Phildelphia seedsman, and sowed a quarter acre of it even then, and that was years and years before this wonderful vegetable ever got into the movies or had even been heard of on Kansas farms. The last time I visited the farm, there was some of that alfalfa growing yet.

Still another advanced modern theory which my father put to work on his farm on the far edge of civilization, forty years ago, was that of working up the crops on the premises and selling the manufactured article. He began selling meat while the neighbors, all except Bean and Duncan and Uncle Peter Fisher, were still selling wheat and corn. He went further, and killed his own pork and sold cured hams and side meat and many a hundredweight of better sausage than any of the modern street-car advertisers ever knew how to make. He ran a dairy and made fine butter, and some tons of first-rate cheese. He made soap, and traded it at the grocery store for brown sugar and currants with sand in them.

So far I have spoken of my father's farming as it was occupied with money-making crops. Yet any farmer of his time and training was sure to do many things from which no return was expected. He had the largest and the first orchard anywhere in that section. There were Winesaps and Grimes Golden in it, as well as Ben Davis; and to an irresponsible boy these always seemed more important than corn or hogs. There was a good peach orchard, and raspberries, and Concord grapes. There was an asparagus bed and a big garden with everything in it from dill to watermelons. Tomatoes were then a novelty, but we had the latest varieties. We had salsify and parsley, and dozens of things that neighboring farms never heard of. As I remember those products now, and compare them with modern standards, I am bound to think that the lettuce and the tomatoes were pretty poor, but the salsify and the watermelons were as good as any that ever grew.

ONE feature of my father's farming was quite peculiar. He had taken up the usual Kansas homestead of 160 acres, while my grandfather had taken a similar one adjoining, and, besides these, both my father and grandfather had taken "timber claims." The futile Timber Claim Act under which these patents were offered required the applicant to plant on each quarter section 40 acres of timber trees, specifying with the utmost fatuity that they must be planted 12x12 feet. Now, even 12x12 feet 80 acres of timber-planting was no slight chore, and as these had to be replanted and kept growing for ten years before the deed to the land could be issued, we had some experience in tree-planting.

Necessarily, Father developed a forest nursery. On the dry Kansas upland, where a merciful Heaven never intended a tree to grow, he raised thousands on thousands of seedlings of every known species. The wise men in Washington who made the omniscient law under which he was working had forgotten to specify the kinds of trees to be planted, and nobody knew what species would succeed. Nobody knows any better to-day, for that matter. But it wasn't my father's fault. He experimented like a full-blown experiment station of later years. He sent to Thomas Meehan in Philadelphia and got seeds of every tree they could supply—American, European, or Asiatic. He grew them all. Many of them were planted out by hundreds, 12x12 feet apart, according to law, and promptly dried up in the Kansas sun and blew away in the Kansas wind, according to a still higher law.

Some of them lived, though, for several years, especially the cottonwoods, black walnuts, black locust, ailanthus, and Osage orange; and at the end of the probationary period there were trees enough growing to satisfy an easy patron like Uncle Sam. The two quarter sections were

[CONTINUED ON PAGE 15]

I Find Fun and Profit in Raising Turkeys

By Mrs. A. E. Kephart

Cedar Lawn Farm, Wellston, Oklahoma

This is Mrs. Kephart

EDITOR'S NOTE: Mrs. Kephart will be remembered as the winner of the first prize in the contest for farm women, entitled "How I Make Money for Myself on the Farm," which appeared in the January number. In her prize letter she told how, in the first six months of 1920, she sold $87.50 worth of poultry and eggs, and had $200 worth of turkeys and chickens to sell in the fall, besides the steady income from 100 hens, which she keeps regularly. Mrs. Kephart is sixty-one, and has poor health; were she living in the city she would have no means of making any money of her own. On the farm, she keeps happily occupied with her poultry, and always has a neat little sum at the end of the year to show for it. She received letters from readers in eleven States, asking about her poultry methods, and so she volunteered to write this article telling how she does it. I think you will find it well worth reading.

SO MANY have written to me asking for information about how I raise turkeys that I cannot possibly answer all letters personally. I am writing this article in answer to those who did not receive personal replies, hoping that it may prove of interest to others.

In the first place, experience has taught me that it is useless to try to raise turkeys unless you are living on a farm, as they require more range than do other fowls; turkeys will not do well in limited quarters.

Nor does it pay to use mixed stock. I never use anything but purebred stock, and I never inbreed.

I have been raising purebred Mammoth Bronze turkeys for twelve years, and like them better than any other breed. They are the largest of all breeds, and are hardy and very tame. The tom that I have now is from stock that cost $25. At ten months old he weighs 40 pounds. The profit is much greater with big stock than with the smaller varieties.

I used to have a great deal of trouble finding the nests, as they would wander away and hide their eggs in the most unexpected places. But now I have no trouble, as I have a poultry park containing about an acre of land, with good Bermuda grass in it, also, usually, some oats or wheat.

I let the turkeys run where they please, until time to begin laying, when they are shut in the lot. Then I provide coops bedded with straw for them to lay in. I feed the birds well, always keeping fresh water, grit, and plenty of oyster shell before them. It is a good idea to feed milk, as on a farm there is usually plenty of it.

As soon as the hens lay their first setting of eggs I set these under chicken hens. If the turkeys get broody, I shut them up a few days or put them outside the park, and in a short time they will begin to lay again. The turkeys are set on the second setting of eggs. They will usually lay 20 or 22 eggs the first time, and 18 or 20 the second time. I had one turkey hen that laid more than 70 eggs one summer, and set four times; but it is not common for them to continue laying so long.

IN PREPARING the nests I hollow out a little place in the ground just deep enough so that the eggs will not roll out, and fill it with plenty of straw. When the hen is setting, I close the door so others cannot disturb her. They like a dark, quiet place in which to set. I open the coops when feeding the setting hens, so they can come out for exercise. They will not eat very often while setting.

When the little ones hatch, I don't disturb them until the second day. Then I give them a little fine oyster shell and bread soaked in milk, or a little cottage cheese with black pepper in it, keeping fresh water always near them. When they are about three days old, I move the coop to a fresh place, and dig a little trench around it to keep the water out. This is very important.

Then I turn them out so they can have the range of the park, shutting them up only at night. Before I had a park I had movable coops large enough to hold two or three hens. These were made of poultry wire, with the top covered. I kept the turkey hens in these, but allowed the little ones to run outside until they were two or three weeks old. This prevented the hens from straying away and losing so many of the young.

I feed only twice a day; overfeeding will cause bowel trouble. It is very important to give green food, such as onions, lettuce, tender grass, green wheat, or alfalfa cut very fine, until they are old enough to find green food for themselves. Do not feed cornmeal or corn chop to young turkeys, as these will cause bowel trouble. After a few days I feed kaffir corn or wheat, and also give plenty of sour milk. Do not let them sleep on wet ground, as it will always cause trouble.

The turkey hen is a splendid mother through the day, but at night she likes to slip away and hide her family, and if you don't watch out she will hide in some low place where, should it rain, the water will run under her and chill or drown the little ones. The male turkey sets an example that would be well for some human fathers to follow. The gobbler will often take part of the family and care for them just like the mother does, even hovering them at night. When the young turkeys get large enough and well-feathered, I let them roost in trees. One of the most critical times for young turkeys is when they are feathering out; the growth of the feathers seems to exhaust their strength.

As a tonic for all my poultry I use the following: Put one gallon of water in a jug, add four ounces of copperas; when dissolved, add one-half ounce sulphuric acid. Two ounces of this solution used in each gallon of drinking water, three or four times a week, will give good results. Do not let water stand in the troughs more than one day.

In addition, I use permanganate of potash in all drinking water for young turks or chickens, as an antiseptic. Take 25 cents' worth of the crystals, dissolve in a quart fruit jar, adding enough to make the water red. If the young turkeys get lice, I anoint heads and under wings with lard, mixed with a small amount of kerosene.

The Way My Father Farmed

[CONTINUED FROM PAGE 14]

duly deeded to Father and Grandfather. But when I last visited the farm the "forest" had utterly disappeared, the land was covered with yellow wheat stubble, and I was constrained to reflect that the only thing left from all those years of nursery work and tree-planting was my own love for horticulture.

I cannot close this sketch of my father's farming without mentioning one other phase of his work. I well remember how he helped to get up the first spelling school on that sparsely settled frontier; how he moved to organize the "literary society" from the spelling-school beginning; how he worked to found a circulating library for the literary society, and how for years these enterprises thrived and blessed the whole neighborhood. I remember how he hauled most of the lumber 40 miles (gratis, of course) to build the first church, of which he was not a member. I remember how he was chairman of the school board and built the first schoolhouse in that region. And I remember, too, how he refused, several times, to go to the legislature, though he could have had the "honor" for the asking. I remember that he organized the first farmers' institute in the county long before there was any institute system or extension service in the State.

In fact, he did all these things before the rural uplift was discovered, long, long in advance of the highly professionalized rural problem, years before any social reformer had ever suggested that the great need of the isolated farm communities was "socialization" or "group effort" or a "community spirit." And sometimes, when I hear the modern expounders lecture on how to save the farmers, I think of my father's farming, and I bless his memory. Then I go outdoors under the trees, all by myself, and look up at the sky and laugh.

90% of all cars use Ford, Buick or Dodge Size Batteries.

BECAUSE of this concentration, which means volume production, our manufacturing costs on these sizes are low, with prices correspondingly low.

However, we do not ask you to buy a Philadelphia Battery on its low price alone. Even more important to you is its reliability, its freedom from annoying little breakdowns, and the unusual fact that failure of insulation is made a basis for adjustment under *all* Philadelphia guarantees.

The table below shows a number of popular cars using Ford, Buick and Dodge sizes. It shows prices on three types of Philadelphia Batteries for each car. Any type will give you good service and with reasonable care will far outlast its guarantee. **Which type you select—twelve, eighteen or twenty-four month guarantee—depends on the same considerations which control your selection of tires.**

MAKE OF CAR		Price of Special Battery *One Year Guarantee*	Maximum Cost per Month Under Guarantee	Price of Oversize Battery *Eighteen Month Guarantee*	Maximum Cost per Month Under Guarantee	Price of Oversize Battery with Philco Retainer. *Two Year Guarantee. "The Cord Tire Battery"*	Maximum Cost per Month Under Guarantee
Buick, Model D Chevrolet 490 Cleveland Columbia Dort Ford Hupmobile	Lexington Liberty Mitchell Oakland Oldsmobile Overland Scripps-Booth	$25.00	$2.08	$30.00	$1.67	$35.00	$1.46
Buick Chevrolet Baby Grand Chandler Cole Essex Grant Haynes Hudson	Jordan Kissel Kar Nash Paige Reo Velie Studebaker Westcott	30.00	2.50	35.00	1.94	40.00	1.67
Dodge Franklin		37.50	3.13	42.50	2.36	47.50	1.98

Exchange prices east of Mississippi River. Government Excise Tax paid
Add 50c to $1.00 for additional freight west of Mississippi, including Pacific Coast

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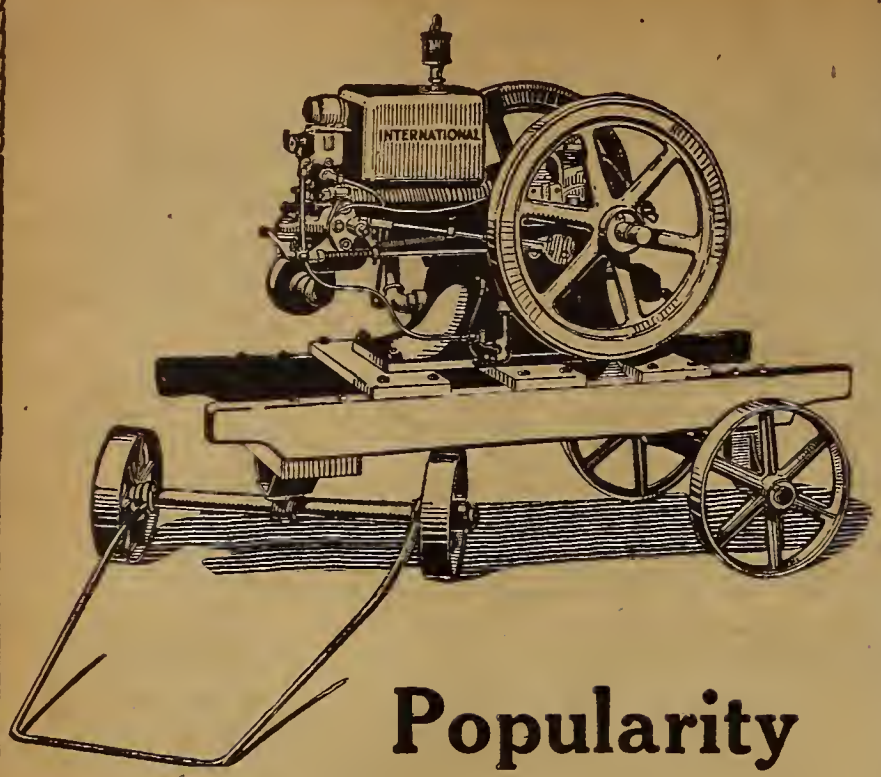

Popularity

SEVERAL factors help to explain why ***International Engines*** are popular wherever they are used. But the most prominent reason is that they do the work their owners want done when it should be done.

International Engine owners know that if there is feed to grind, the International will do it. If there is water to pump, the International will pump it. The same is true with wood sawing, churning, chopping feed, fanning grain, etc., etc. The International will turn the trick, when you give it a chance.

In accomplishing this, ***International Engines*** use low-grade fuels. They are simple to operate—many farmer boys not yet in their teens start and operate International Engines with ease.

International Engines have built-in magnetos, replaceable cylinder liners, enclosed crank cases. They are hopper-cooled, and have many other valuable features. Made in 1½, 3, 6, and 10 h. p. sizes.

Send a postal for an engine pamphlet.

INTERNATIONAL HARVESTER COMPANY OF AMERICA
CHICAGO U S A

Fernald, Iowa, a Town That is Owned by Farmers

By T. J. Delohery

WHENEVER Jim Jones of Fernald, Iowa, needs anything in the line of groceries, lumber, coal, or anything else, he hitches up, goes to town, and visits the general store. He then trades as follows:

"Well, Jim, what'll it be this morning?" he asks himself.

"Oh," is the reply, "gimme a sack of sugar, a box of prunes, some canned pineapple, and some candy for the kids."

Mr. Jones doesn't talk to himself; but in reality he does, for he, with other farmers in the community, owns the store. And not only that, but the rest of the town, as far as business is concerned. He deposits his money in his own bank, sells his wheat to his own elevator, and buys his coal and lumber of himself.

One can readily see there is no dissatisfied customer.

Up to about ten years ago the farmers around Fernald did most of their trading at Nevada, the next town, which is six miles away. Fernald wasn't owned by farmers then, and everything was high. The town was without a bank, too.

The first step in the development of the farmer-owned town was the organization of the bank. Then came the ownership of the general store. There were two stores in the town, and prices were higher than elsewhere. Then it was planned to merge the two stores, and, seeing still higher prices, the farmers bought out the place—and ran it to suit themselves.

FOR the first few weeks after the store was owned by the farmers the trade at Nevada fell off. Fernald people began to stay at home, and the clerks did a big business, both night and day. In the daytime they sold the stuff and at night marked down the prices.

Business doubled, and the store, which cost a little more than $5,000, did a business of more than $20,000 the first year, and this was at a big saving to the farmers. Aside from returning a nice profit to the farmers holding stock, the goods are sold lower than elsewhere.

And women, five wives of farmers, are among the stockholders. Leave it to them to keep the other women from spending their money away from home!

The city folks are just as interested in the town as are the farmers. The reason for this is that they are stockholders. At first the city folks sort of "renigged" when it came to coöperating with farmers in a business they didn't understand, but they were soon converted when they saw the idea.

Eleven girls and women own one fifth of the capital stock in the town elevator. Moreover, they are paying more for wheat, corn, and oats, be the seller a stockholder or not. They have no desire for a big profit, the big idea being to keep their own money and to live happily.

And this coöperative system did not stop at business. It resulted in a better social life of both farmers and city people. They visit each other now, and ten years ago they were as far apart as day and night. Mrs. President of the Bank, a wife of a farmer, visits Mrs. Cashier of the Bank any time of the day, when she is in town. They have tea, talk a bit, and then Mrs. President of the Bank hops into her car and goes home—a more satisfied woman.

There is no drudgery on the farms around Fernald. The whole community, city and farm, is just like a brotherhood. Everyone knows everyone, and everyone enjoys himself.

A Truck Saved His Bacon

IF YOU want to make E. Thompson of Beloit, Wisconsin, laugh, just mention the fairy tale of "Tom, the Piper's Son," and he'll tell you about his Tom and the pig. Moreover, he'll tell you a story on auto trucks, and how useful they are around the farm.

Mr. Thompson has an auto truck and 20 horses, neither of which he would dispense with. He might sell some of the horses, especially when he buys his tractor, but right now he needs them on the farm.

He has a 1½-ton truck, which he uses to good advantage for hauling stuff to market.

"I have used my truck for nearly a year," he said, "and I would not be without it. I also have 20 horses, and while I would sell some of them I don't believe in a horseless farm. I am going to buy a tractor, so I won't have use for all of them.

"The other day my truck earned a big part of its cost. You know, it is kind of hard to get cars, and I wanted to ship a load of hogs to market. I ordered a car, but the station agent promised nothing. About two hours before the train was to leave he phoned me that a car had been side-tracked for me, and to get my hogs loaded.

"I made it all right; but without the truck it would have been an impossibility, for I am three miles from the loading station. We used the truck and one wagon. The truck made three trips, and didn't lose a hog. The wagon made one, and one hog got loose, running back to the farm.

"The wagon kept on, and my son chased the pig down the road. You never saw such a sight. Since that time we always call him "Tom, the Piper's Son." We were at the station with the truck at the time, on our third load. They told us of the hog, and we shot back and rounded him up, put him on the truck, and made the train.

"I use the truck for other things too, and our roads are not the best. Many times I have hauled 100 bushels of corn with it. This isn't right, but I was in a hurry. A load of 100 bushels of oats is nothing. Our country is quite hilly, too." J. T.

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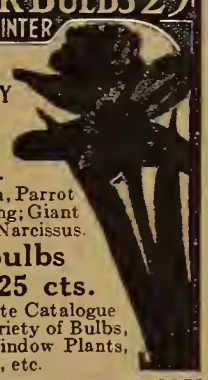

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Smiling Pete—A Famous Dog

THIS smiling Boston Bull is no other than Peter Niccoboy II, one of the most famous dog actors in moving pictures. He was only a few days old when his master, Clarence Burton, an actor well known on the Western coast, introduced him to studio life, but since his début he has gained fame in many of the pictures produced by a large California movie company.

Peter Niccoboy II

Photo by Barret C. Kiesling

Peter is not a trick dog. He has made himself valuable to picture directors, however, through his willingness to do what he is told—a quality many human actors are said to lack. Most likely Peter inherits this evidence of good dog breeding from his mother, Highball Betty, and his sire, Champion Peter Niccoboy, who stand high in Boston society.

That Rome Beauties are money makers is shown by this picture, taken in the orchard of M. H. Dyer & Son of Lowell, Washington County, Ohio

How the Famous Rome Beauty Apple Got Its Start

By Clarence M. Baker of Ohio

HAVE you ever heard of the Rome Beauty? Rome Beauty is best known as a southern Ohio orchard product, but its reputation has spread to other localities, particularly the far-famed Western apple districts, which supply many of our Eastern markets with the beautiful large red apples. Whether the Rome Beauty of the West is as good as the Rome Beauty of Ohio is, of course, another story.

The Rome Beauty had an interesting origin. Joe Gillette, one of the early Ohio settlers, bought, in the fall of 1816, a number of apple trees from Israel Putnam's nursery at Marietta, Ohio. He took these trees to a farm two miles above Proctorville, Washington County, and in the following spring, while preparing to plant the trees, one was found which sprouted below the point of grafting. This he gave to his son, saying:

"Here, Alanson, is a Democrat, plant it and see what you get out of it."

The boy planted it in a fertile corner of a field overlooking the Ohio River. When it came into bearing it was found to produce such fine apples that it was named Rome Beauty—Rome, from the name of the township, and Beauty from its fine appearance.

It was not until 1848, however, that the notice of the excellent fruit was brought before the Ohio Convention of Fruit Growers. The original tree stood on the bank of the Ohio River until about 1860, when it was undermined and washed away by high water. An idea of what Rome Beauty will do is shown by F. H. Ballou of the Ohio Experiment Station, in some demonstration work in southeastern Ohio. In the orchard of I. T. Lewis, of Porterfield, Washington County, an acre of 40 trees, at twenty-three years of age, gave a yield of 1,430 bushels. This is believed to be the largest yield ever recorded from a single acre of apple trees.

Secrets of Seed-Corn Selection

[CONTINUED FROM PAGE 6]

5. Select ears that are of convenient height.
6. Select ears that are borne on strong sound shanks that support the ear. Avoid ears with broken shanks where the ear is hanging down.
7. Select ears that are fairly smooth, not overly starchy, and which have a bright, healthy luster.
8. Select four or five times as many ears as you will need for seed the next season.

The same day your seed is gathered husk it, and put it in a dry place where the ears will not touch each other, and where there is a free circulation of air around them. Corn selected in the field always contains water. It should therefore be husked at once and dried rapidly. The best plan is to store the seed on seed-corn racks where mice cannot reach it, or you can string it on strings or wire frames and hang it in an open shed or loft. After the seed has hung in the shed or loft for two months, the seed ears will be thoroughly dried. They can then be stored in any dry place where they will be protected from rats and mice.

During the winter the ears should be sorted and only the best ones saved for seed. You can make a more careful examination of the ears for disease at this time. Ears that are excessively rough or very starchy should not be saved. Ears having shank attachments that are pink or brown colored, or that are cracked or shredded, have probably grown on diseased stalks, and should be discarded, regardless of their appearance in other respects. Ears that have kernels which are dull in appearance, discolored on the germ side, or moldy at the cob attachment are probably diseased, and should be discarded. The ears you save should have a bright appearance, clean shank attachments, shallow to smooth indentation, and kernels that are thick, bright, and have good-sized well-developed germs.

You should make the final selection for seed on the germinator. By its use other diseased and weak ears can be detected and eliminated. Kernels from each ear should be germinated separately in an especially prepared germinator box or modified rag-doll germinator. (These germinators are fully described in Farmers' Bulletin 1176, which can be obtained from the Superintendent of Documents, Washington, D. C., at five cents a copy.) At the end of seven days in the germinator it is possible to eliminate poor ears, and to reserve for seed only those ears represented on the germinator by kernels that all grow and show healthy, vigorous seedlings.

AFTER the seed has been germinated, it is a good plan to shell the seed by hand. If the ears are shelled separately into a small pan, any badly diseased spots on the ears will be detected, and such ears which have not been detected up to this time will be found and can be discarded. It is a good plan, after the corn is shelled, to grade it. When the proper plates are used in the planter, graded seed will insure a more uniform crop and a better stand of corn.

You may think all this work is too much trouble. If you do, stop and figure how much work you can afford to do in order to increase your yield of corn 10 to 15 bushels an acre, and then remember that Mr. Funk thinks that it pays him to go to all this trouble to produce seed for his 25,000-acre farm in Illinois.

Hand Helpers on the Farm

Every farmer will find a dozen jobs a day where Boss Work Gloves will come in mighty handy. For instance:

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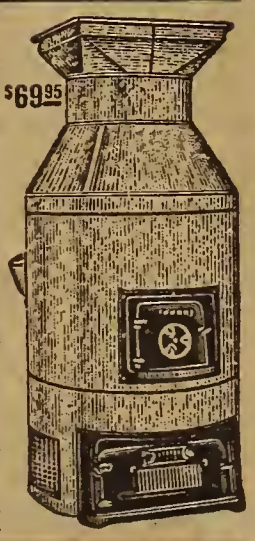

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Clay Export Co., 1121-H W. 35th St., Chicago

I Put In a Light Plant

[CONTINUED FROM PAGE 7]

the whole outfit would set me back. He said it depended on the size of the plant, wiring of the house, etc., but he could sell it part down and time on the rest. All of which began to sound good to me. I would buy most anything to get away from another washday—if he'd take my note.

Now, that man savvied his *negocio*, as the Mexicans say. He wasn't a regular agent at all. His name was Collins, and he was an electrician of parts. He figured out how many 20-watt bulbs we would need in each room, considering the color of the wall paper, size of the room, and so on, and whether they were ceiling drops or wall brackets. Then he added in a porch light, closet lights, cellar lights, two for the garage, two in the stables, and one in the saddle-room. Then he added 500 watts to the kitchen for the dishwasher and other contraptions; 250 watts everywhere else for the vacuum cleaner which he had not figured on. Then he added it all up and found he had left out 300 watts for a motor to pump water from the cistern to the bathroom and wash house.

Mr. Freeman has never been introduced to you before, except by Tony Sarg, the artist, who has illustrated his stories. Here he is as he appears in real life on his ranch, the Triangle-Bar, near Carrizozo, New Mexico

He took a tape line and measured around over the walls, etc., to see how much wire would be necessary. It seems that the distance the lights are from the batteries has a lot to do with the diameter and cost of the wire. I asked him how that was, and he began to draw on his vocabulary.

He mentioned apparent watts and true watts, and I gathered that a lot of watts apparently went in at one end of the wire and only the true watts ever got any place and did what they started out to do; that Watts is a dissipated guy at best, and that he stops by the wayside to dissipate, and that the larger the wire the less he dissipates; that he must not only go from the battery to the bulb, but he must go home again and do it all over some more; that he loops the loop, as it were.

Just as Collins got to going good, and was stepping on the exhilarator, Bill Evans, my right bower, came up. Bill listened to the talk about watts, volts, current, amperes, ohms, and so on. I had been wanting to ask what part each played, but hated to expose my ignorance.

"W'at in Sam Hill is a what?" asked Bill. "And when does it volt the current and scamper 'ome?"

"Well," said Collins, grinning at me as though it was a great joke that a New Mexico cowhand did not know what was a watt. "If you will just consider that the batteries are nothing but reservoirs for water with a pipe line to the fixtures, you'll get it all right. The wire is the pipe line, the current is the flow in the pipe. The voltage is the pressure. An ampere is the unit of measuring the quantity like the gallon in measuring water. The ohm is the resistance or friction the current encounters in the pipe line, see?"

"Yes, I see," said Bill. "But w'at—"

"Oh, yes, a watt is the unit of measuring the energy the current produces. For instance, 746 watts are approximately equivalent to an English horsepower, see?"

"Ah, yes," said Bill blankly. "I savvy the burro in the bean patch."

"Now," continued Collins, "to figure out the size battery you need, we add up all the watts you will probably use in a week, which in your case is about 3,900. Take the 32-volt battery, which we will still call a reservoir, fully charged with a capacity of 160 ampere hours. To get the watts we multiply the 160 amp's by the 32 volts' pressure, which gives us 4,120 watts. That would give you plenty to run your lights and appliances a week without recharging the batteries. That's what wears out a battery—recharging. Ordinarily, by charging them once a week they will last around seven years—we guarantee ours for five years. Then, after that, if you want a new set we will allow you what the jars and things are worth on the purchase price of a new set."

Now, in my weakened condition, with the backache, a sore thumb, and everything, I just could not resist his gift of gab—especially when he told me he would take my note, without interest, till I sold my calves. I signed on the dotted line.

Well, in the next week Bill hauled up a load of sand and gravel. I brought out four sacks of cement from town, and we were all ready for Collins when he came.

He brought the whole outfit out on a truck, uncrated the engine, and used the crate for a form in which to pour the concrete base for the engine. Then, while this sat and set, we got busy running the wires.

The plant we put in the wash house, and used No. 6 insulating wire to the house, and No. 11 wire over the house. To economize, we did not put in fixtures, only drops of lamp cord. But we put in a heavy board just above the lath and plaster in the ceilings, between the stringers, to screw the chandeliers to when we did want to put them in. Where we wanted a wall outlet Collins ran the wires down to it in a hollow metal molding that really added to the appearance of the room. He made all the splices with little patented dodads that did away with soldering and could be attached with a screw driver. Everywhere the wires crossed wood or each other he put little porcelain tubes to reduce the chance of short-circuit or fire. In each room he put an outlet in the baseboard to attach the vacuum cleaner, a floor light, or even our little quarter-horse-power motor, if we wanted to.

Here is the rest of the Freeman household. We can guess which one is Bella, but for your information, and to satisfy our own curiosity, we wrote Mr. Freeman, and asked him what were the names of the little Freemans. Just as this magazine went to press we got a reply, and so now we know they are Carl and Rhoda

He also put in a three-way switch in the barn, and one on the back porch, so we could turn the barn lights on or off at either place. In case we come to the house and forget the lights out there, we don't have to walk back to turn them off. And in the closets there he fixed them so they light when the door is opened, and cut off when the door is closed.

We put up a pole to keep the wires from sagging between the barn

and the house, and there he hung a bulb which is on the barn circuit and which can be turned on and off from either of those three-way switches, and lights the whole place.

Then we sat the engine outfit on the concrete base. The bolts we had put in the concrete just fitted the holes in the engine to a tee. We built a kind of a rack to set the batteries on. Each jar had two poles sticking out of it to attach the wires to, and I wondered which was which. But Collins showed me each pole was marked either + or —. That in connecting them the + should always be attached to the — pole on the next jar to it, and in that way we could make no mistake. Well, we did just that, and he attached the batteries to the instrument board bolted on the engine-generator. Then Collins began to talk some more.

"Here's where you pour your lubricating oil, and that indicator tells you when you have plenty. Here's where you put your gas—or you can run on coal oil if you want to. See this dial here?" and he pointed at a water gauge or something. "That tells you how much juice you have in your batteries. You see, they are full charged now. When they are used a bit, this hand turns back, and when it gets over that red area you should recharge. He pressed the starter button, but the engine would not start.

"What's the matter?" asked Bill. "Why don't she sputter?"

"Well, the engine is equipped with an automatic stop, so you can't overcharge the batteries. When the batteries are full the engine stops, and you can't start it till the batteries have been drained a bit—it's absolutely fool-proof. A child can start it, and it will run without any attention as long as it has gas and oil, and, as I say, when its work is done it stops itself."

Then we went around and turned on all the lights and came back, and Collins punched the button, and she went off and didn't make any more noise than a sewing machine. We attached the little motor to a base plug in the dining-room, and she purred like the song of a contented soul.

AFTER dinner, Collins set the dishwasher in the kitchen. Bella put in the dishes, and poured in about as much water and soap as she would use in a dishpan, and he turned it on. At the end of fifteen minutes those dishes were as clean as a whistle, and all she had to do was pour some scalding water over them and put the top down. They dried of their own heat! It's a fact, I haven't wiped a dish since!

And say, that little portable motor—I took it out to the barn and hooked it onto the horse clippers, then found the clippers were dull. So I hooked it onto the grindstone, ground the clipper blade, and then clipped old Baldy till he looked like a thoroughbred. And saw wood, man! I ran a belt out through the window of the wash house, hooked on a pole-saw outfit, and buzzed up enough wood in about an hour to last us a month, all while I was recharging the batteries—and did it with coal oil, too!

Now, all together, it cost me, saw frame and everything, even to the four sacks of cement, the little motor to pump water from the cistern, the big bottle of distilled water to put in the batteries, and all, $986.50. And so far it has cost me 72 cents a week to run the whole outfit, which wouldn't feed a girl a day!

This morning Bella acknowledged that, when Collins came the first time that Thursday, she told him to come back Tuesday. That must have been what I did not overhear. And, as I think it over, it does appear that she put one over on me. But I will never admit it—to her. . . . Anyhow, I bought the wood-saw outfit of my own accord.

Books We've Received

Productive Orcharding, revised edition (one of the Lippincott Farm Manual series), by Fred C. Sears, M. S., professor of pomology, Massachusetts Agricultural College. Published by the J. P. Lippincott Company, Philadelphia, Pa. Price, $2.50.

Farm Blacksmithing, by John F. Friese, head of machine shop and forging departments, Technical High School, St. Cloud, Minn. Published by the Manual Arts Press, Peoria, Ill. Price, $1.25.

The Federal Administration and the Alien, by Frances Kellor, author of "Immigration and the Future." Published by the George H. Doran Company, New York City. Price, 50c.

Sheila and Others, a story of the simple annals of an unromantic household, by Winnifred Cotter. Published by the E. P. Dutton Company, 681 Fifth Avenue, New York City. Price $2.

Railroad Valuation—"Watered Stock" No Government "Guaranty"

I
Value of the Roads

The GREAT QUESTION in the minds of many farmers is: "What is the TRUE VALUE of the railroads?"

The idea has been spread far and wide that the valuation on which the roads are allowed to EARN A RETURN is far TOO HIGH.

Most people are willing to pay a FAIR PRICE for things they buy—transportation or anything ELSE.

The return which railroads are allowed to earn is not based upon the STOCK or the BONDS but on the value (at pre-war prices) of the actual railroad PROPERTY—cars, locomotives, stations, etc., used in the service.

The Interstate Commerce Commission studied the problem THOROUGHLY, and found that the MINIMUM reasonable valuation of this property was $18,900,000,000.

II
About "Watered Stock"

An act requiring a GOVERNMENT VALUATION had been passed in 1913. That work is not yet complete.

The work so far as finished shows that the roads, AS A WHOLE, are worth MORE than their capitalization.

Taking the roads as a whole, the "watered stock" argument HAS NO BASIS.

These valuations are NOT BEING MADE ON PRESENT PRICES but on 1914 prices.

But MORE important to the farmer: Even if ALL railroads had "watered stock" it WOULD NOT COST THE FARMER A CENT; for capitalization has NO EFFECT ON RATES.

III
No Government Guaranty

The farmer has been TOLD repeatedly that the Government guarantees the railroads a SIX PER CENT RETURN, and the roads have NO INCENTIVE to economize.

When the roads were taken over by the Government in 1917, for WAR purposes it agreed to pay the owning companies a RENTAL equal to the average which the railroads ACTUALLY EARNED in the three years preceding.

The Government piled up WAGES and other railroad EXPENSES but did NOT increase RATES enough to meet these costs. When the roads were returned, their owners could not make up losses by TAXATION as the Government did.

Under these EMERGENCY CONDITIONS the Government continued for 6 months (March 1 to September 1, 1920) to make up any DEFICIT in income below the war rental.

But that arrangement CEASED September 1, 1920; now the railroads get only WHAT THEY CAN EARN up to 6 per cent. If they earn more they divide with the Government. If they earn less no one makes up the deficiency.

THE GOVERNMENT GUARANTEES NOTHING!

As a matter of FACT the roads have earned only about 2½ per cent since last September. The deficit below a 6 per cent return is PERMANENT LOSS.

The roads haven't earned enough even to keep the properties in PROPER REPAIR.

IV
Our Interests Mutual

For at least FIVE years, the development of the railways has been at a STANDSTILL. No industry can grow and expand its SERVICE when it can not pay interest or dividends to those who invest their money in it.

The EARNING power of the railroads was practically DESTROYED during the war. Only by RESTORING it can the railroads again provide facilities for the business of the country.

A CONSTANT supply of new investment is as necessary to the growth of railroads as FERTILIZER is on the farm.

The farmer can not prosper unless railroads prosper. Railroads can not prosper unless the farmer prospers.

OUR INTERESTS ARE MUTUAL.

Association of Railway Executives

Transportation Building Chicago, Ill. — **61 Broadway** New York — **Munsey Building** Washington, D.C.

Those desiring further information on the railroad situation can secure it by addressing the offices of the Association

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Beware of Imitations or Experiments!

Don't sell all your hogs. Save 2, 5, or 10 and smoke your hams and bacon in a National Giant Smoke House. Smokes fish, too. Saves half butcher bills. Gives far better, sweeter, cheaper meats for your table. The

An 8-Years' Success — **NATIONAL GIANT PORTABLE SMOKE HOUSE** — Made in Three Sizes

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cost less; outlast three ordinary roofs. No painting or repairs. Guaranteed rot, fire, rust, lightning proof.

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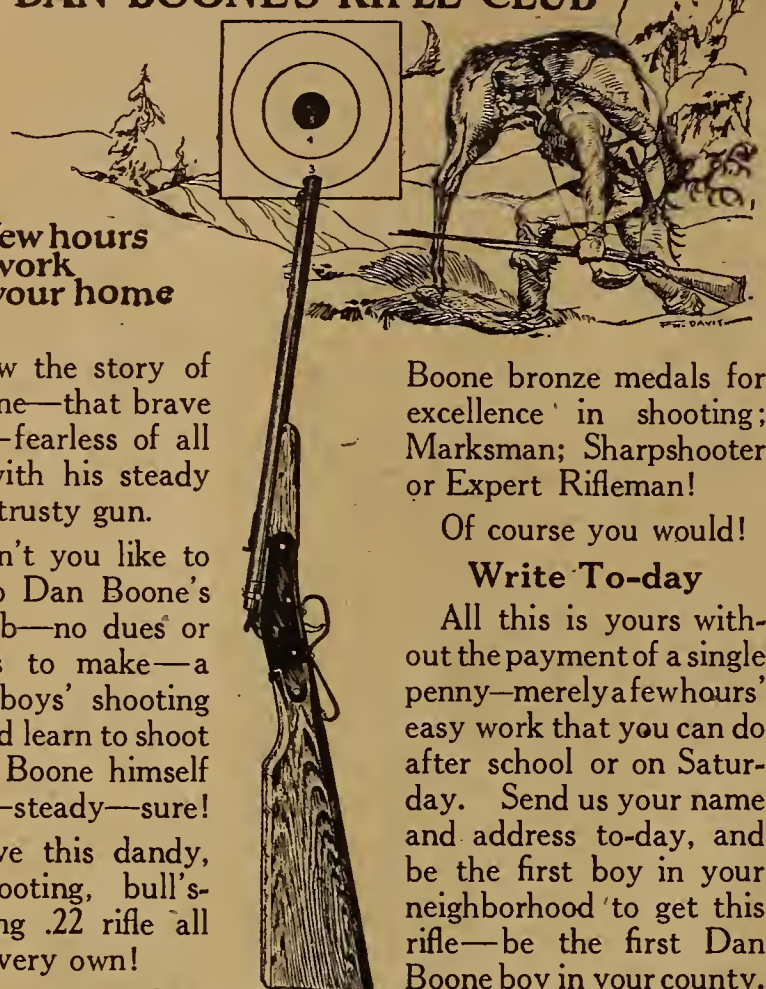
FREE Samples & Roofing Book

Given away to BOYS

This dandy **RIFLE** *and full membership in*
DAN BOONE'S RIFLE CLUB



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Wouldn't you like to belong to Dan Boone's Rifle Club—no dues or payments to make—a national boys' shooting club—and learn to shoot like Dan Boone himself—quick—steady—sure!

To have this dandy, bullet-shooting, bull's-eye hitting .22 rifle all for your very own!

To wear the proud Dan Boone pin, shown below—a badge of honor!

To earn the right to wear the beautiful Dan Boone bronze medals for excellence in shooting; Marksman; Sharpshooter or Expert Rifleman!

Of course you would!

Write To-day

All this is yours without the payment of a single penny—merely a few hours' easy work that you can do after school or on Saturday. Send us your name and address to-day, and be the first boy in your neighborhood to get this rifle—be the first Dan Boone boy in your county. Just a post card will do, and we will tell you all about our easy plan to earn this wonderful rifle and membership. Write to

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DAN BOONE'S RIFLE CLUB
Dept. R-56 Springfield, Ohio

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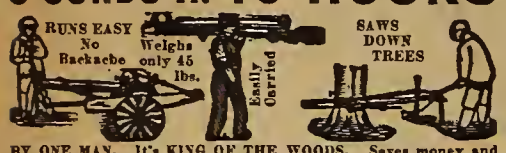
9 CORDS IN 10 HOURS



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Want to hear from owner having farm for sale; give particulars and lowest price.
JOHN J. BLACK, 71st Street, Chippewa Falls, Wisconsin.

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Former Price $189—now $99.50. Latest model. Fast Cutting Outfit. Engine, Saw, etc., all complete. From Pittsburgh, add $6.00. Catalog FREE. Write for particulars.

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Don't miss this book. Don't buy a dollar's worth of goods until you get the sensational money saving prices quoted in the 96 pages. Just send your name on a post card *now*. Address Jim Brown, Pres.

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FUNSTEN
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St. Louis, Mo.

"The Best Country Paper in America"

[CONTINUED FROM PAGE 5]

this public room, provided with tables, chairs, and a rather complete agricultural library, and given over without charge to those who may care to avail themselves of the use of same, has played a rather important part, not only in community movements, but also in business building.

The real spirit of the community, the character of the countryside, and the quality of the people and their possessions is largely reflected in the pages of the paper. So let us pause just here to make hasty examination of a few issues of the "Eagle."

One page is given over entirely to cards of uniform size, advertising various flocks and herds in Cooper County. This livestock directory includes the names of some fifty local breeders, and we find here such farm names as Homewood, Eminence, Forest Hill, Grandview, Mt. Vernon Park, Riverview, Walnut Dale, and Ravenswood. While practically all classes of livestock are represented, Shorthorn cattle, for which the county has long been noted, lead in aggregate value. The Ravenswood herd, the oldest in the State, was established in 1839. On another page of the paper are several dozen small cards inserted by local poultry fanciers, who advertise choice birds and eggs for sale. Still other advertisements, of which there are several, tell where tested seed corn can be had.

RUNNING through the news columns, we note such facts as the following:

One local breeder of hogs has realized $30,000 from two public sales held within the county, the average per head of these being $360. At still another sale of Poland-Chinas, a top price of $10,200 was reached for a single hog, this value, of course, being exceptional. A Berkshire sale shows an average of $160.70 per head, while a breeder of Duroc-Jerseys made an average of $166 in his first sale. Lest the reader think these sales of purebred stock, which might be continued at length, represent fad values, attention is called to the reports of various sales of general livestock, where practically no registered animals were included. Here we find an account of one sale that totaled almost $30,000; in another amounting to $19,185, is included sale of a span of mules at $902. In another farm sale, totaling $10,037, a span of mules brought $1,015.

Here is an item concerning the sale of three Shorthorns to go to Oklahoma at $300, $400, and $500, respectively. Another item refers to four Shorthorns disposed of at private sale, and which brought a total of $8,000. In connection with this, it might be said that, a few years ago, a calf out of a cow sold from the herd just referred to, brought the record price of more than $39,000, gold money, in the Argentine.

Another item refers to the sale of two Angus cows and calves at $1,500, the purchaser being a farmer in an adjoining county. Even in the letters from county correspondents we find such items as these:

"Miss Clara Stith bought two purebred Poland-China gilts of Hall Turley for $500," and, "Elwood Fray sold a carload of mules for $385 per head." In fact, these farm and stock items are scattered throughout the "county correspondence," which differs greatly from the ordinary news.

In the poultry column is an account of two Mammoth Bronze turkeys sold at $175, and shipped to South Dakota. Another item tells of a local fancier who has shipped birds to nine different States.

Where such prices as have just been reported have been realized, it is natural to presume that good seed stock has been purchased. Turning our attention to this, we note where one farmer paid $75 for the best pen of Rose-Comb Rhode Island Reds exhibited at a show of national importance, the same man paying $375 for a Duroc-Jersey sow. In a recent sale of Poland-China hogs, held in Oklahoma, we note purchases by three Cooper County breeders as follows:

To one herd, a sow at $4,000, and another at $2,500; to another, a sow at $2,275; and to the third a sow at $2,350. There is, in the same issue of the paper, an item concerning the purchase by a new breeder of a Duroc-Jersey sow at $950.

In the report of the state corn show, it is shown that local breeders won the most coveted prize, including that for grand championship bushel, for grand champion ten ears of corn, and grand champion single ear. The $500 loving cup, the most coveted prize of the show, went to a young farmer from Cooper County, a boy who, only a few years ago, took up, on the old home farm, corn-breeding in a small way. Another item tells of the sale of seed corn to South American parties, while another corn breeder has shipped to practically every State in the Corn Belt. A rather unusual item relating to corn tells of the sale of cobs to a local cob-pipe factory. The returns from cobs, where special cob-pipe corn is grown, are in many cases larger than were the acre returns from corn a few years ago.

Elsewhere we find an account of the meeting of the Cooper and Moniteau County Sheep Breeders' Association, an organization which each year encourages a big local sheep show. Another "golden hoof" item tells of the purchase of more than 100 imported sheep which have been added to local flocks. Values and results as reported have not come by accident, nor should it for one moment be thought that the newspaper referred to is alone responsible for this splendid showing. No such claim is made. While the "Eagle" has largely led the fight, and has always lent encouragement, it has not been alone. Credit must go to individuals, to banks, and other agencies whose enterprise and foresight have made these things possible. There has been the finest of teamwork.

As illustrating the general public spirit, one local bank reports the organization of a pig club with 96 boys and girls as members, while another bank has financed the boys and girls in the purchase of purebred sows. Many local breeders have voluntarily come and offered prizes aggregating almost $1,000, to be distributed when the hogs owned by these young people are exhibited and sold at the fall sales. Then there is a boys' and girls' calf club which has become one of the leading features of the county fair.

PROBABLY the most effective work that the "Eagle" has been able to do in all this movement has resulted in the practice of consistently calling attention to the work of individuals, or encouraging those who are striving toward better stock and better things, in pointing out where a purebred animal is better than a scrub, and in the oft-repeated statement to the effect that the neat, well-kept home, however humble, is more to be desired than a dilapidated and neglected farmstead.

In concluding this story, a very natural question would be, What has the "Eagle" got out of all of this? The answer, if we consider alone dollars and cents, would be that the returns have been comparatively little as compared with the money that might have been made in other business ventures. Still, this newspaper represents a well-conducted business. There is nothing about the "Eagle" to remind one of the old-fashioned newspaper which advertised that it would take cordwood on subscription, and which was constantly begging its delinquent subscribers to pay up. Instead, advertising, subscription, and commercial printing represent rates bringing reasonable remuneration.

"My largest returns, though," said Edgar C. Nelson, who has succeeded the two older brothers in active management of the paper, "are represented by what I might refer to as the durable satisfactions of life." This remark was made as he stood looking over Eaglecrest, his suburban farm, the home of mammoth Poland-China hogs of the best breeding. Here, after all, is the secret: The editor is in fact a farmer, and on his farm letterhead we notice this motto: "Better stock, better soil, better living."

The Farmer Who is Successful

[CONTINUED FROM PAGE 1]

wheat on the plains of Oklahoma, Kansas, or Nebraska, remember that you can well afford to grow a few acres of feed crops. A few dairy cows will go a long way toward providing food of the best quality for your family, and the sale of cream, butter, or other dairy products will furnish an income every month of the year, and will provide a means of living when the cotton or wheat crop fails.

A few hogs and a flock of chickens can be grown on your farms without much expense; there is always waste food from the table that hogs will consume, pasture can be provided at little cost during a large portion of the year, and poultry, if kept in not too large numbers, will pick up a large share of their living from insects and waste grain on the farm. The crops will be better because of the poultry.

Many a wheat grower in the Wheat Belt of the United States has found a flock of turkeys the best type of grasshopper exterminator. They more than paid their way as destroyers of insects, besides providing a neat little sum at Thanksgiving time with which to pay the fall taxes. There are many crops that have been called mortgage lifters, but I doubt if there are any surer taxpayers on the farm than the flocks of chickens and turkeys.

THIS is the proper type of diversified farming, and it is during times of adversity like the present that safe systems of farming such as this show up to advantage. It is types of farming of this kind that we should all follow, because they are the types of farming that eventually win.

There is no family on earth so independent and so nearly self-supporting as the family on a diversified farm, provided they take advantage of their opportunity to live off their own products. A much larger share of the living can easily be secured from such farms than is now generally done. The automobile, which furnishes quick transportation to town, and the parcel post, which delivers packages to our doors, have made it easy to depend upon the other fellow for many things that we could well prepare at home.

Now is a good time to revive some of the good old customs on the farm. We have been becoming too dependent for our living on the other fellow. The art of curing meat and canning on the farm should come back. The pressure cooker and the girls' and boys' canning clubs are helping with this problem, but not enough has yet been done. We should not be satisfied until the back yard of every farm home is cleared of tin cans, and until every farm family has its own supply of canned or cured meat for both winter and summer use. It is practices of this kind, when adopted by all families, that will do the most to pull us safely through this readjustment period.

Banking in Jawgy

THE leading negroes of a Georgia town started a bank and invited persons of their race to become depositors. One day a darky, with shoes run down at the heels, a gallus over one shoulder, and a cotton shirt, showed up at the cashier's window.

"See heah," he said, "I want mah ten dollahs."

"Who is yuh?" asked the cashier.

"Mah name's Jim Johnson, an' I wants dat ten dollahs."

"Yuh ain't got no money in dis heah bank," said the cashier, after looking over the books.

"Yes, I has," insisted the visitor. "I put ten dollahs in heah six mont's ergo."

"Why, man, yuh shure is foolish! De intrist done et dat up long ergo."

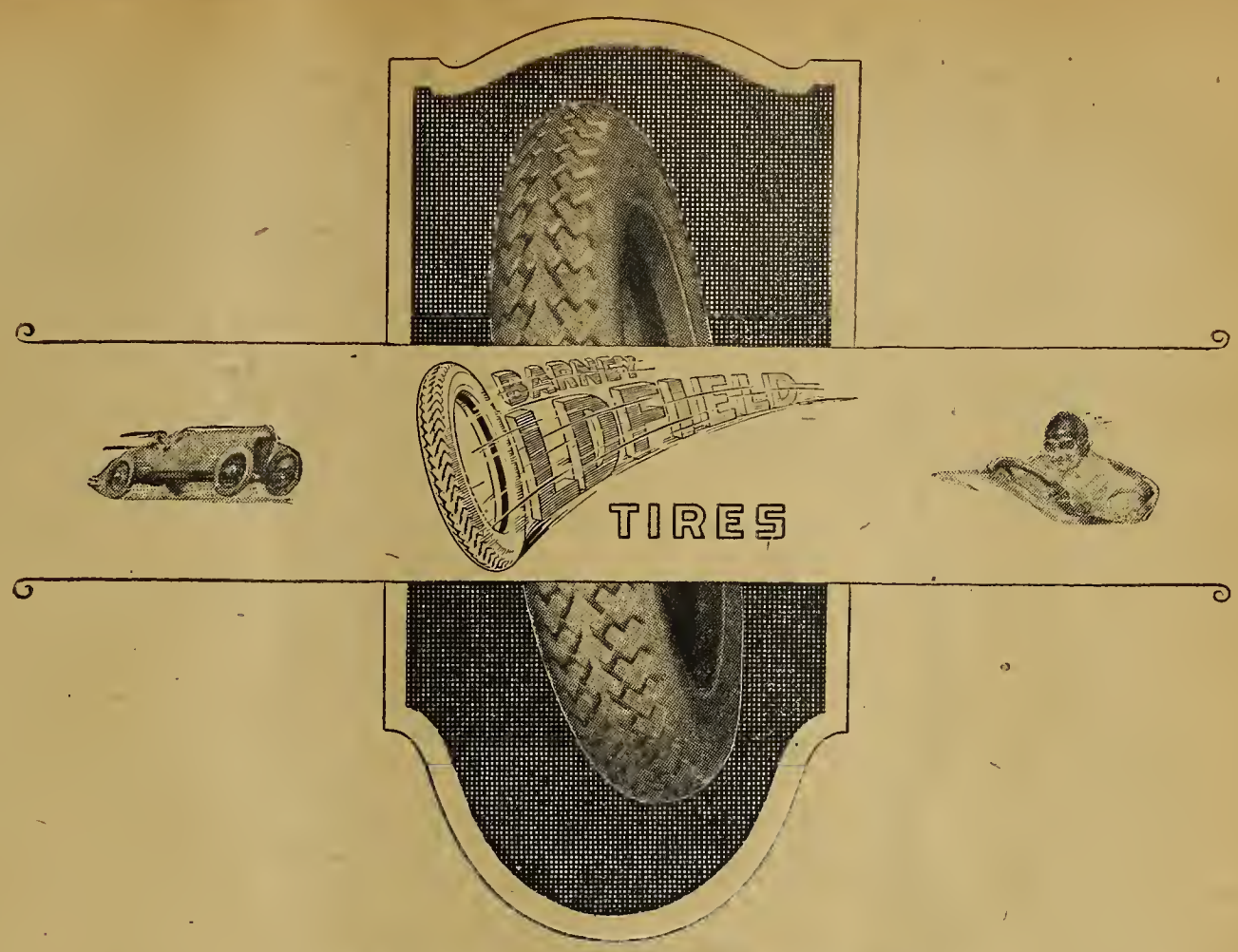
Forbes.

Setting-Hen Patience

[CONTINUED FROM PAGE 2]

that it would never have been erected had not the herds been managed with conspicuous success. That is the history of most successful farms, whether owned by individuals or institutions.

For ten years J. S. Douglas, as herdsman and farm superintendent, has ably seconded Dean Skinner's effort. His training was in the Canadian school of Peter White, W. D. Flatt, and Senator W. C. Edwards. When you get a Scotchman and a Hoosier working together on a cattle-breeding problem the answer is sure to be found in a few years. They will build the herd no matter how small the outlay.



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At least one automobile trip yearly across the continent for the past fifteen years is included in the 500,000 mile total Barney Oldfield has driven.

Oldfield Tires are the accomplishment of an ideal in tire construction. There is perfection in the hard wearing Arrowhead, anti-skid tread that bites and grips yet rolls with the low resistance of a triple tread tire.

Fabric or cord, Oldfields have taken a place of prominence because of their outstanding qualities.

We will so guard that quality that Oldfield tires shall always justify the praise they are now receiving.

The Oldfield Tire Co., Akron, Ohio

Made of Sheet Steel

BOYS AND GIRLS!

A few hours' easy work after school earns this dandy phonograph

Guaranteed to play any 10-INCH RECORD all the way through with one winding

Loads of Good Fun

Have you a phonograph of your own? If you haven't, here's your chance to get one easily. It's not a big machine, but it will play any ten-inch record all the way through with one winding. It produces music that is almost as sweet and beautiful as you could get from the highest priced machines. You'll never tire of it. With this machine you can have a whole afternoon's or evening's fun any time the notion strikes you. Your mother and dad will enjoy the music every bit as much as you.

Carry it With You

This machine is light and compact so you can easily carry it with you any place. Suppose you're invited to a party. Imagine how popular you'll be if you bring along your machine and entertain the whole crowd. Dancing and singing will then be in order for the evening and everybody will have a much better time.

Are You Ready?

If you really want this portable phonograph, you'll clip the coupon at right and mail it to me right away. In a couple of days more you'll know all about my easy plan which hundreds of boys and girls have already worked. The sooner you send the coupon the sooner you'll have a phonograph. Don't let some other boy or girl beat you. Mail the coupon to-day.

D. S. STEPHENS, F.F. 271
Springfield, Ohio.

I would like to earn one of your phonographs.

Name .....

P. O. .....

R.F.D. No......*Box No.*.....*State*.....

Hurry the Molt-Get Fall Eggs

Hens can't make feathers and eggs at the same time. The quicker they get through the molt, the earlier they begin laying.

Get your hens back on the job early—get lots of eggs this fall and winter—get the profits from winter eggs. Help your hens to keep in perfect health—to overcome the strain of feather-making—to avoid the danger of molting-time sickness—to get new plumage quick—to shell out the eggs. The sure way to do this is to regularly give your flock

Pratts Poultry Regulator

the time-tested, guaranteed poultry tonic and conditioner. "Pratts" naturally strengthens and invigorates the whole system—helps the molting hens—hurries the growing pullets to early laying maturity. The natural result is EGGS, more eggs than your flock could lay without this great help. Learn how well your flock can lay. Just give them this big help.

Save Money! Buy Pratts in 12 and 25 lb. pails; 50 or 100 lb. bags.

Clean your poultry houses—disinfect them with

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One gallon of this concentrated germ-killer makes a barrel of strong disinfectant solution. Spray or wash walls, nests, roosts, feed troughs, water dishes and other equipment. Make them clean and free from disease germs.

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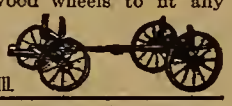
Electric Wheel Co.
13 Elm St., Quincy, Ill.



Sloan's Always Relieves Your Aches and Pains

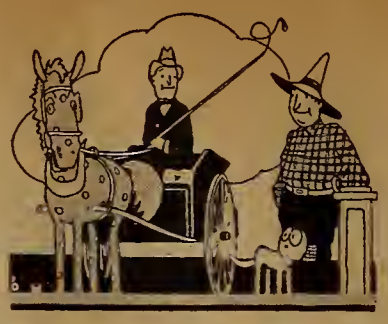
THAT was a nasty twinge but Sloan's got right down to the aching spot and quickly eased the pain.

That's the story that thousands can tell. Ask your neighbor.

For forty years Sloan's has been the old stand-by for all sorts of external aches and pains, resulting from weather exposure, sprains and strains, lame back and overworked muscles. Penetrates without rubbing.

All Druggists
35c
70c
$1.40

Keep it handy
Sloan's Liniment
The World's Pain's enemy



Sold

NO, SIR, I don't want that eighty!
I'll jest tell you once for all:
That old place ain't worth discussin'
No time—neither spring nor fall.
I jest had a sneakin' feelin',
When you pulled that new colt's rein,
That you'd stopped to git an idee
Whether I'd gone clean insane.

No, sir, I'm jest plumb contented—
Got my mind made up to stay
On this side of my old fence posts,
Where I know that work'll pay.
Now, you drive on home—or, maybe,
If you'd call up Old Man Leach,
He might be inclined to dicker,
For you sure use honey speech!

Now, o' course, that farm, with ditchin',
And a heap o' fertilize',
Might be worth—oh, maybe ninety?
But at that it ain't no prize!
What? You're goin'? Well, so long, son!
Hope you hook some other cod,
With a pocketbook that's achin'
To git loose and spill its wad.

Say—that colt, now! Don't he step some?
Too much barrel, I'm afraid—
What's that? He goes *with* the eighty?
Son, come back! You've made a trade!

WALTER GREENOUGH.

How to Test Concrete

MANY times you have been puzzled over the failure of concrete to last satisfactorily, and maybe you were inclined to blame the concrete. Generally, however, other things have been the matter. There are a few simple tests of materials that you can make at small expense without going to a laboratory.

Tests of Cement. If the cement has been carefully stored, and has no hard lumps that cannot be readily crushed with the fingers, it is probably safe to use. Of course it should be a standard brand, put up in a properly labeled package. The label should state the name and address of the maker, the brand of cement, and net weight of contents.

Tests for Sand and Gravel. Fill a quart glass jar about one third full of sand or gravel. Fill jar nearly full of water. Shake jar well for about one minute, rest a while, and then shake jar for another minute. Now allow jar to stand until water above the sand is clear. Note the silt, if any, above the sand. If more than one-sixteenth of an inch of silt appears, the sand is not fit for use for permanent work.

Fill a 12-ounce prescription bottle to four-ounce mark with sand or gravel to be tested. Now fill to seven-ounce mark with three per cent solution of sodium hydroxide. (This may be obtained for a few cents at any drug store.) Shake bottle well, and let stand overnight. Liquid may be clear or may range from straw to dark brown in color. If darker than light straw color, material should not be used.

This test shows presence of vegetable matter which often coats grains of sand or gravel with a sort of gelatin and prevents the cement from clinging or gripping the particles and cementing them together. Full particulars regarding this test may be secured from Lewis Institute, Chicago, Illinois, where it was first developed.

F. W. IVES.

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Wonderful Animal Bait

Send postal for free sample of our **Wonder Bait**—works where others fail—holds under snow or water. Nothing else like this. Also get particulars of how you can get your lures FREE—**increase your catch and profits without a penny's expense.**

Silberman not only grades high and pays more, but helps you trap more fur. **Let Us Help You**

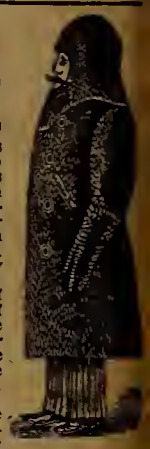
Get More for Your Furs and Increase Your Catch

Fifty-five years in the fur business and two million dollars' capital make us the best house for you to do business with. Paying big prices, square grading and prompt pay has built this wonderful business.

FREE Don't fail to send for the Free Bait Sample, Special Proposition, latest Fur Price List and Trappers' Supply Bargains. A postal brings them all.

S. SILBERMAN & SONS
19 Silberman Bldg., Chicago, Ill.

LET US TAN YOUR HIDE



Horse or Cow hide, Calf or other skins **with hair or fur on,** and make them into coats (for men and women), robes, rugs or gloves when so ordered, or we can make your hides into Oak Tanned **Harness or Slaughter Sole Leather; your calfskins into Shoe Leather;** colors Gun Metal, Mahogany Russet or lighter shade. Your goods will cost you less than to buy them and be worth more.

Our Illustrated catalog gives a lot of information. It tells how to take off and care for hides; how and when we pay the freight both ways; about **our safe dyeing process** on cow and horse hides, calf and other skins; about the fur goods and game trophies we sell, taxidermy, etc.

Our Fashion Book, which heretofore has been a separate affair, has been incorporated in and made a part of our regular catalogue. **It has Fashion plates** of muffs, neckwear and other fine fur garments; also remodeling and repairing, together with prices and estimates. In ordering catalog, write name and address plain.

The Crosby Frisian Fur Company
571 Lyell Ave., Rochester, N. Y.

One Man Saw Rig

CUTS FASTER—PAYS FOR ITSELF

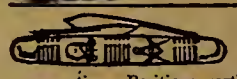
Saw your own wood for winter. Make big money cutting wood for market. New OTTAWA One-Man Saw Rig saves time and labor. Easily moved. Magneto equipped. No extras to buy.

4 H. P. **OTTAWA** Friction Clutch

A complete, powerful, 4-H. P. engine for belt work. 30 Days' Free Trial. Buy for Cash or on Easy Terms. Write for FREE BOOK and new low factory price.

Ottawa Mfg. Co., Dept. 122 Ottawa, Kans.

Special Safety Guard over saw.



Sales Agents wanted in every county to give all or spare time. Positions worth $750 to $1,500 yearly. We train the inexperienced. Novelty Cutlery Co., 152 Bar St., Canton, Ohio

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"Nu-Life" Piston Ring Expanders are placed under piston rings to restore their life. They absolutely stop oil pumping, cure piston slaps, increase compression, reduce noise and carbon deposits, save oil and gasoline, and give life to the motor, without installing over-size rings or pistons. Made for all types of motors. To obtain best results install one under each piston ring. **Price 25c each.**

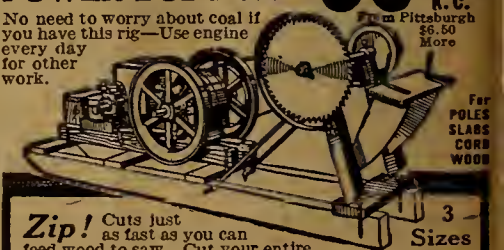
Ford Owners: Send $3.00 for a Complete Set

American Auto Products Co.
1319 L Street, N. W. WASHINGTON, D. C.

WITTE $69.00

POWER BUZZ SAW F.O.B. K.C. From Pittsburgh $6.50 More

No need to worry about coal if you have this rig—Use engine every day for other work.



Zip! Cuts just as fast as you can feed wood to saw. Cut your entire winter's wood in a few days. **WITTE Power Buzz Saws** are built in 3 sizes—small, medium and large. **Engine and Saw complete with belt.** Every farm should have one. We also make Log Saws, Tree Saws and big Portable Saw Rigs. Tell us Size Engine or Saw Outfit you can use, and we will quote you special.

3 Sizes

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Easily Driven—"Capewell" Horse Nails—even when the hoof is hard and dry. Clumsy, dull pointed nails mar the outer surface of the hoof and break down a needless amount of tissue. Ask for Capewell nails and keep the hoofs in prime condition. World's best at a fair price, not the cheapest regardless of quality.
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TRAPPERS SUMMERFIELD has treated You square for 50 Years
50 years of square dealing has earned us the confidence of trappers all over America, Canada, and Alaska.
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If fair honest grading, prompt returns and top market prices are what you want, you will make no mistake in shipping to the old reliable House of Summerfield.
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Buying Furs for ABRAHAM FUR CO.
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Write us today for full information on how to Grade, Value, and Buy Furs. We will send you our FREE BOOK on this subject worth its weight in gold to anyone who handles furs.
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Be prepared. Get your full share of the real prosperity awaiting Trappers and Dealers that deal with America's Largest and Most Reliable Fur House, the Abraham Fur Company of St. Louis, Missouri.
Trappers' Supplies
We carry the largest line of Trappers' Supplies in the World—everything the trapper needs. We have the cash capital to buy in large quantities and offer you real bargains in *Traps, Guns, Smoke Pumps, Animal Baits, Rubber Boots, Clothing, etc.*
Write for our price list today. Do business with Abraham Fur Co. and you will get the most satisfactory results. We save you big money on supplies—pay you more money for your furs and teach you how to Grade, Value and Buy Furs from others.
Write us today—sure—it's all free.
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118 Abraham Bldg. St. Louis, Mo

How We Fixed Our Barn to Make Choring Easy

By Charles Olive of Minnesota

I HAVE noticed that on some farms it takes about three times as long to do the morning and evening chores as it does on other farms with an equal amount of work and the same number of workers. I used to think that the men were lazy, therefore taking longer to do a certain amount of work; but after a little study I came to the conclusion that the barns were to blame. After examining a number of barns, we built one that I have never seen surpassed for convenience.

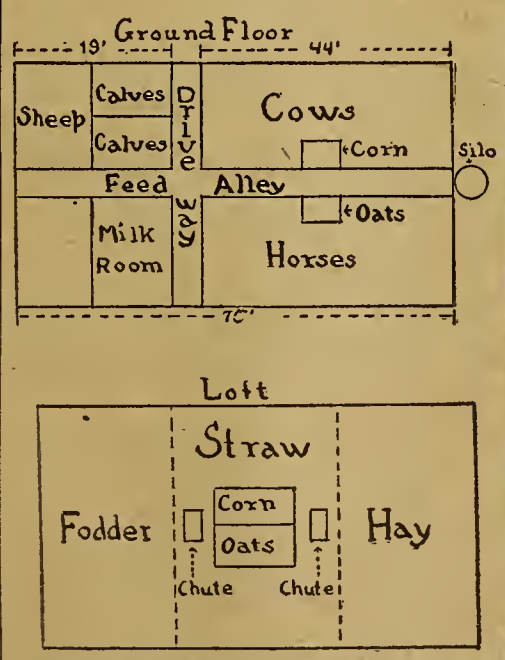
In our barn, doing the chores goes like a dance, because one does not need to carry feed long distances; all grain and forage are kept close to where they are needed, thus many useless steps are saved. Hay, grain, and silage are kept in the same alley. We can do our chores in about half the time it takes in other less convenient barns.

Our barn is a wooden structure, with lots of windows to admit light and air. These windows alone make the barn more convenient than others where the light is barely sufficient to keep one from stumbling over things. The building is 40x75 feet in size, large enough for average use on any 160- or 200-acre farm. It holds a goodly number of beasts, and in addition has ample storage for grain, hay, fodder, and straw.

Our barn runs north and south, and the silo adjoins it on the north end. We put the silo there because on the south end it would have cut out too much light and sunshine. An overhead carrier rail connects the silo with the feed alley, and runs the entire length of the alley. The horse stable, which is east of the feed alley, is 16 feet wide and something like 40 feet long; the cow stable, which is west of the alley, is the same size as the horse stable. The horses have regular mangers, with doors to open for putting in the hay and feed. When the doors are closed, the horses are completely separated from the cows. The cows have simple mangers to hold the hay, so it cannot be pushed out of their reach. A feed box, also, is set up for each cow. South of the stables is the driveway, a very handy arrangement for any barn. Beyond the driveway are spaces for the calves, sheep, brood mares, etc. The milkroom, also located there, contains the cream separator, and is carefully shut off from the rest of the barn.

A GOOD supply of oats and corn is stored in the loft in two bins, with funnel-shaped bottoms, from which the grain is led down to built-in containers by wooden conduits. The oats container is on the horses' side, and the corn container is on the cows' side. These containers are self-feeders, being automatically filled when the supply of grain gets low. The bins in the loft are so built that no hay or dust can get into the grain. The grain is elevated from a small platform in the driveway, but it can also be taken up through an outside door if desired.

In the loft is an ample additional space for hay, shredded fodder, and straw, which are let down into the feed alley through two chutes. It will be seen that feed and fodder of all kinds can be dealt out almost from one place, an arrangement necessary to quick choring.



Here are the floor plans of Mr. Olive's barn, showing how he arranged things to save steps in choring

Help your Moulters Moult

Moulting time is the time that a hen needs assistance. It is the off-season in the life of the hen.

Think of the amount of a hen's energy, vitality and red blood that's required to reproduce a thousand feathers! (which is only an average plumage).

A moulting hen needs good health, good appetite and digestion. That's just what Poultry Pan-a-ce-a does for a moulting hen—gives her appetite and good digestion, so that she'll eat more and digest more.

Dr. Hess Poultry PAN-A-CE-A

Helps your poultry through the moult. And starts your pullets and moulted hens to laying.

It contains Tonics that produce appetite and good digestion—Tonics that tone up the dormant egg organs—Iron that gives a moulting hen rich, red blood and a red comb. It contains Internal Antiseptics that destroy disease germs that may be lurking in the system.

No disease where Pan-a-ce-a is fed

Pan-a-ce-a helps your poultry to stay at par during the moult. They don't become run-down, pale and thin. That's why a Pan-a-ce-a hen gets back on the egg job quickly instead of sitting around all fall and winter as a bill of expense while regaining her normal vitality.

Always buy Pan-a-ce-a according to the size of your flock. Tell your dealer how many fowls you have. He has a package to suit. Good results guaranteed.

25c, 75c and $1.50 packages. 25 lb. pail, $3.00. 100 lb. drum, $10.00. Except in the far West and Canada.

DR. HESS & CLARK Ashland, Ohio

Dr. Hess Stock Tonic keeps hogs healthy, drives out worms.

Dr. Hess Instant Louse Killer Kills Lice

YOU CAN'T CUT OUT A BOG SPAVIN, PUFF OR THOROUGHPIN, BUT
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will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. $2.50 per bottle, delivered. Will tell you more if you write. Book 4 R Free.
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Get It From the Factory Direct
PRICES AGAIN REDUCED. We Pay the Freight and save you money. Direct from Factory to Farm. Laura Struebin, Holden, Mo., writes: "The fence ordered of you arrived O. K. I saved $14.00 on a $34.00 order. You can't afford to buy fence until you get our Big Free Catalog showing 100 styles and heights of farm and lawn fence, gates, etc. Write today.
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WHITE LEGHORNS Thousands of hens, pullets and males at lowest prices in years. Winners at 50 big shows and laying contests. Records up to 307 eggs. We ship C. O. D. and on approval. Catalog and bulletin of special prices gives full particulars. Write for it now.
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All Sizes Lower. Kerosene or Gasoline. Prices f. o. b. K. C. Carload fgt. to PBG. Write for CATALOG.

2 H-P.	(was $59)	Now	$39.95
6 H-P.	(was 180)	Now	119.90
12 H-P.	(was 352)	Now	249.00
30 H-P.	(was 1091)	Now	699.80

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Fastest Cutting Log Saw
310 Strokes a Minute! Over 5 strokes each second! Do you know of any experienced timberman who can make 5 strokes a second for hours at a time? The new improved OTTAWA Log Saw will do all this for you. Write today for the reason why there are more OTTAWAS in use than all others combined. Why it is the fastest cutting, easiest moved, most powerful. Why it is the standard by which all others are judged.
A Big Money-Maker
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Does Belt Work When Not Sawing
Only Sold Direct From Factory at Low Factory Price. Shipped quickly to you from nearest of 9 conveniently located Factory Branches. Power Force Feed makes the OTTAWA saw the human way. Friction Clutch starts and stops saw while engine runs. 4-cycle frost-proof engine. Balanced crank shaft. Mounted on wheels. Easily moved.
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Now Selling at New Reduced Prices
The price of the OTTAWA is so low that anyone with wood to cut can't afford to be without one. ONLY SOLD DIRECT FROM FACTORY TO THE USER.
30 Days' Trial: Cash or Easy Payments. Make big money sawing wood in spare time. 10-Year Guarantee backed by largest Log Saw Factory in the world.
Special Offer: Don't saw any more wood the old, hard way. Saw more wood, quick and easy—with the OTTAWA. Get Special Offer and Free Book at once. Send Today.
OTTAWA MFG. CO., 975-A Wood St., OTTAWA, KANSAS.

Easy Now to Rid Your Farm of Rats

Wonderful Discovery by Noted Scientist Kills Every Rat Within a Week's Time—Not a Poison.

Rats cost farmers over two hundred millions of dollars a year, through the destruction of grain, poultry and buildings. Farmers need no longer suffer this loss because they can now kill off all the rats on their farm in less than a week's time. This is possible through the remarkable discovery of E. R. Alexander, a Kansas City chemist, who has perfected a virus which kills rats, mice and gophers as though by magic. This product is not a poison—it can be eaten by human beings or any animal on the farm as safely as their regular food, but means quick, sure death to rats.

This wonderful rat virus, which is known as Alexander Rat-Killer, is merely mixed with bread or meat scraps and placed where rats, mice or gophers can get to it. Within a few hours after a rat has eaten Alexander Rat-Killer he gets a high fever and suffers a terrible thirst. He leaves the barns and nesting holes and goes to the open fields in search of pure air and running water. Rats and mice affected always die away from the barns and houses, so there is no odor.

It is a scientific fact that one rat affects others and soon the whole colony leaves the buildings and dies. And though this virus is absolutely deadly to rats—chickens, hogs, cattle or any farm animal can eat it and not be affected at all.

So confident is Mr. Alexander that Alexander Rat-Killer will kill every rat on your farm in less than a week's time that he offers to send, as an introductory offer, a regular $2.00 tube for only $1.00. Give it according to directions, and if at the end of a week's time you are able to discover any rats, mice or gophers on your farm, your money will be refunded. A big Kansas City bank guarantees that Mr. Alexander is reliable and will do as he says.

Send NO MONEY. Just write to E. R. Alexander, Alexander Laboratories, 182 Gateway Station, Kansas City, Mo., and the tube will be mailed at once. When it arrives, pay the postman only one dollar and postage on the guarantee that if not absolutely satisfactory your money will be returned without question. Write today—a postcard will do—and stop your rat losses now.

Your Move—

—your turn to enjoy the thrills of Chekko.

Chekko is the new brain building teaser. It's 3-handed checkers, but altogether different—scientific, yet even children enjoy it. The all-year game for all the family.

Hexagon box 9¼ inches diameter, with three sets of checkermen. **Order from this ad.** Send only 25c; satisfaction and safe delivery guaranteed. Order to-day; address Dept. C.

Chekko Company, 326 River St., Chicago

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1½ H-P ENGINE IS *Now only* $35.50

Other sizes 2 to 22 H-P at proportionally low prices.

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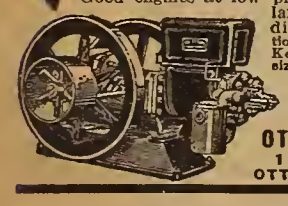
Good engines at low prices because made in large quantities and sold direct from factory. Stationary, Portable, Saw Rig, Kerosene, Gasoline. Most sizes to choose from.



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OTTAWA MFG. CO.

1153-A King Street

OTTAWA - KANSAS

The Woman Seller

[CONTINUED FROM PAGE 3]

for a chaser, and left me to my thoughts. A seven-foot partition divided me from the next cubicle. I ascertained that there were twenty-nine boards in it, counting from left to right, and twenty-nine counting from right to left. The bees in my head increased, multiplied, and swarmed. I fell asleep, and dreamed that I was selling Dekkar Eights to the King of Siam.

"Phil," said the king to me, as we sat in his luxurious private office, "you're some salesman. I take off my crown to you. Say no more. I'm 100 per cent sold. The Dekkar Eight is hereafter the official car of Siam. Wait a sec."

He picked up a gold telephone set with rubies.

"Give me the royal high chancellor," he said, "and make it snappy." An instant later I heard him say: "Hello, that you Jake? This is the king. Say, Jake, I've picked the Dekkar Eight. Issue a law right away that every man, woman, and child in Siam must own a Dekkar Eight. Yes, I'll pay for 'em. Do you get that? All right, Jake. So long."

HE SPUN around in his ivory chair and faced me.

"There are 8,149,763 people in Siam," he said. "I want to place an order for 8,149,763 Dekkar Eights. When can you deliver them?"

"Next week," I said promptly.

"How much are they?"

Twenty-six hundred and seventy-five dollars each, f. o. b. Poughkeepsie."

"O. K. I'll pay cash, of course. Gold," said the king. He picked up a diamond-studded fountain pen. "Let's see now," he said. "How much are 8,149,763 cars at $2,675 each? Three times five are fifteen, put down your five and carry your one—"

"Here's your gargle, Mr. Winship," I heard a voice say; and I opened my eyes to find a white-capped, smiling nurse bending over me.

"You're not the Queen of Siam, are you?" I asked.

"Not exactly," she said, with a laugh.

"I've had such a vivid dream," I told her.

"It's the fever," she said. "Fever patients always dream about Siam, or Yucatan, or something outlandish."

I liked her voice. It was low, sweet without being sentimental, good-natured, and with a ring of capability in it. She was a plain, round-faced woman, probably five years past thirty. Somehow she had that matronly look. Had you seen her in street clothes you'd have thought her the sort of woman who is always hoping that the children at home are behaving themselves, who is always just a little worried whether Jimmy and Susie and little Joe are stuffing beans up their juvenile noses. Her name was Miss Quest.

IT DEVELOPED that my part in the scarlet fever drama was a thinking one. I hadn't a thing to do but lie flat on my back for three weeks and wait until I had desquamated, which, Miss Quest explained to me, meant until I had shed my skin like a snake. My sore throat gave up the unequal struggle against the shellac-like gargle and disappeared after the third day, and my temperature, after having a bull movement to 103, went below par, and was firm and steady at 98.6. I explained this Wall Street humor to Miss Quest, who appeared to appreciate it. Anyway, she laughed. I like anyone who laughs at my jokes—don't you?

"Miss Quest," I said one morning, during the ceremony of taking my temperature, "I don't know much about hospitals. Aren't nurses supposed to marry doctors or rich patients?"

I was sorry a second later that I had asked the question.

"In the story books, they do," she said, without her usual smile. "In this hospital there is just one doctor, and he is sixty and married. As for rich patients, nearly all the patients here are kids with measles."

She looked away from me, out toward the brightening trees of spring.

"I've been nursing other people's children for fifteen years," she said.

"That's a splendid service," I said.

I know I sounded like a preacher, but I wanted to say something to let her know that one man at least sincerely appreciated her work. I blamed myself for starting the subject.

"I know, I know," she said in a low voice. "But even nurses in contagion hospitals are human."

She stood gazing out of the window.

"You don't realize, I suppose, that we are pariahs, outcasts," she said. "I have no friends I can visit near here. People are afraid I carry germs. I don't, of course. A nurse is more careful about that than ordinary people. But they think so. Even if a nurse here did want to marry, where could she meet the right sort of men? Where could she entertain them?"

There was nothing I could say. She went out of the room without looking at me.

On Sunday they let my wife come to see me. They wrapped her in a white robe that made her look like a lady barber, and permitted her to talk to me from the doorway, where no lurking germ could possibly leap on her. The scarlet-fever wing is cut off from the rest of the hospital by doors so we could converse in privacy.

"I was talking to your nurse before I came in," said Helen. "She's a dear. Don't you like her?"

"MISS QUEST is a corker," I said emphatically. "It almost repays me for having this fever and missing all the Dekkar sales to see someone who understands her job and does it as well as Miss Quest. I never thought anybody could give me a bath and make me like it."

"Don't you go falling in love with her," warned Helen.

"No fear, dear," I laughed. "But I wonder why somebody hasn't long since. She's a born wife and mother."

Helen wrinkled her adorable nose and looked serious.

"It is one of the great tragedies of the world," she said, "that so many born wives and mothers never become either. And it's all because you wretched men care so much about a pretty face. You leave a splendid woman like Miss Quest to do her wiving and mothering vicariously, by caring for measly kids and fat old automobile salesmen with the pip, all because she hasn't dimples and a baby stare."

"Don't jump on me, dear," I protested. "After all, I've done all I can. I've married one woman. I've often wished that there were a million of me, so that I could make a good husband to all the fine women like Miss Quest."

"You're an old Turk," said Helen, "and I love you. I know what you mean. But since there is only one of you, what are you going to do about it?"

"I've been thinking about the question," I replied. "I'm getting lots of chance to think these days. I've decided that it's all a question of salesmanship."

"Thank God, you're yourself again," exclaimed Helen. "When you begin to talk about salesmanship, that shows you're getting back to normalcy. What do you mean, Phil?"

"Just this. Women like Miss Quest don't know how to sell themselves. They have the goods, all right. There isn't a question in the world that they'd make wonderful wives. But they haven't the salesmanship necessary to get the idea into the thick heads of the men who fall, as you say, for an inferior article with such superficial selling points as dimples and a baby stare."

"YOU ought to start a school of Romantic Salesmanship," smiled my wife. "Put your picture in the magazines, with your finger pointing straight out of the ad like a pistol, while you say in big, black letters: 'You, Miss Woman, I can teach you how to sell yourself in ten lessons. Begin TO-DAY to learn the gentle science of Putting Yourself Over.'"

"That's not such a bad idea at that," said I.

My wife thought a moment; I knew she was thinking by the way she puckered her brow.

"Here's another," she said. "You say that a good salesman can sell anything?"

"He can," I said.

"And you modestly admit you are a good salesman?"

"Others have said so."

"Well," said Helen, "why don't you sell Miss Quest?"

Just then her visiting time was up.

The next morning I heard sounds in the

Here are I. Ben Miller, Carter's right bower in his dairying campaign, and Charles Weiss, farmer, one of the first converts to the new idea. Mr. Miller owns the ice-cream factory at Cape Girardeau, and is one of the biggest local buyers of sweet cream. Mr. Weiss is so enthusiastic over dairying that he is making over his farm into a dairy plant just as fast as he can.

Sam Carter

[CONTINUED FROM PAGE 10]

on his farm, and equipping it right up to the minute, so the surrounding farmers may have the opportunity of seeing the last word in dairying without going a long way from home.

Before I left Cape Girardeau I asked Carter how he figured the relationship between Guernsey cows and banking.

"There's none, only it gives their owners better credit," he replied. "It doesn't make any particular difference with me where they do their banking. I never ask them to bank with us, but I do know this—it gives them something with which to pay off their debts. Our farmers used to come into the bank and shy around considerably asking for a $100 loan. Now they walk right up to the window and, with their thumbs in their vests and their chests pushed out, ask for one or five hundred without batting an eye. If there is any question about their paying it back, they tell us they have their Guernseys, and can settle their obligations. They get it—and not one of them has failed to meet his note promptly.

"In learning to take care of their cattle they have also learned to take care of other things accordingly."

Pretty sound logic, seems to me.

next cubicle—bumping and thumping and whispering and a shuffling of feet, and I deduced that another scarlet-fever patient was being installed there. The partition prevented me from seeing, of course, but not from hearing. Presently Miss Beamish, the head nurse, came in with her pedigree book, and I heard her ask:

"What is your name?"

"Timothy D. Mulqueen," roared a voice so loud that it startled me, but so cheerful that I didn't resent it.

"How old are you?"

"I'm—let's see—forty-one."

"Married?"

"No," very loudly.

"Your occupation, Mr. Mulqueen?"

"Let's see. You might say 'business man,' or you might say 'merchant,' or you might say 'proprietor.' Better put down 'proprietor'. It sounds best."

Miss Beamish laughed.

"Scarlet fever doesn't seem to worry you," she said.

"Nothing does," replied Mr. Mulqueen.

"Your case is a light one," she told him. "But you'll have to take it easy for three weeks."

"If I must, I must," said Mr. Mulqueen cheerfully.

SHE went away, and I heard him humming softly to himself a little song of which he appeared to know only one line:

"I was happy till I met you, on the sidewalks of New York."

I thought it best to get acquainted with my neighbor without delay, for the worst hardship in a hospital for a man inclined to conversation as I am is to lie all day with his talk bottled up inside him. So I called out:

"How are you feeling, Mr. Mulqueen?"

"Not so bad, not so bad," he roared. "What are you in for?"

"Three weeks and scarlet fever," I told him. His laugh made the partition tremble.

We exchanged minute descriptions of our condition, were equally enthusiastic over the prospects of a diet of milk toast and mashed potatoes, and agreed unanimously that a large porterhouse steak, richly dight with onions, and a bottle of a certain illegal amber fluid would "go good." The phrase is Mr. Mulqueen's.

"You in business, Mr. Mulqueen?" I inquired.

"Yes; I've got the neatest little grocery store in Sound Beach," said my neighbor, pride in his accents.

"Business good?"

"Fine," he answered. "Of course I've only got a little store. I've only owned it a year. I had to save up nearly twenty years before I could get a business of my own. It was a long pull."

He told me of his hard struggle, his hopes and disappointments, about the happy day when he saw his name on a sign, in large gilt letters, with "Prop." after it, and I began to like my neighbor; he had a philosophy and a ready laugh.

"Are you married?" I asked him.

"No, I am not," he answered with considerable emphasis, "and I don't want to be, either."

"Surely you're not a woman hater?"

"Yes, I am," he said flatly.

"Oh, come, you don't mean that," I protested. "What did the girls ever do to you?"

"Oh, nothing much," he answered. "But I've learned to get along without luxuries."

"But a wife is a necessity, I think."

"Not to me, she isn't," said my neighbor.

"And did you never think of marrying?"

"When I was young and foolish, I did," answered Mr. Mulqueen. "But when I was young and wanted to get married and couldn't afford to, no girl would have anything to do with me; now that I can afford to, I won't have anything to do with them."

"I should think living all alone would be pretty lonesome sometimes," I ventured.

"I guess I've become used to being a bachelor," said Mr. Mulqueen. "I have a pretty good time. I've got a dandy little flat up over the store, and I know how to cook. Nobody to jump on my neck if I put my feet on the mantelpiece or drop ashes on the rug. I can throw together a pretty mean dinner. Sometimes I have the boys in from the lodge, and we play pinochle."

I made noises denoting interest and attention.

"Then I have an eighteen-foot sailing dory," he went on, expanding with that camaraderie which makes men exchange confidences in hospitals and jails. "Eight months in the year I can take her out for a run on the Sound. Sundays I usually fish. I caught over a hundred mackerel when they were running last September."

"What did you do with them?"

"Made a fish chowder for the boys from the lodge."

"Do you expect any of them will be out to see you?" I asked.

"Oh, I suppose not," a bit sadly I thought. "They're all pretty busy, I guess."

"My wife comes to see me every day," I remarked. How Helen managed to get around the hospital rules and do this, I never learned; but she did. It's a way she has.

"Oh, you're married then?" asked Mr. Mulqueen.

"You bet I am," said I. I wish Helen could have heard me.

"How long?"

"Five years," I replied.

"How do you like it?" he asked.

"Like it!" I exclaimed. "Man, it's the greatest thing that ever happened."

"You don't tell me?" said Mr. Mulqueen. I thought I read genuine surprise in his tone.

"I do tell you," I said, and I wish Helen might have heard my unfeigned enthusiasm.

"Aren't wives a nuisance?" he asked.

"Wives may be; but a wife, the right wife, isn't. Decidedly not. Why, Mr. Mulqueen, a man doesn't begin to live until he has a wife to share his joys and sorrows with. Every experience I have now I enjoy twice as much as I used to—once when I have it, and again when I tell my wife about it."

"Well, you ought to know," admitted Mr. Mulqueen. "But I don't suppose you can have as good times as you could when you were a bachelor."

"Why not?"

"Isn't your wife after you with a rolling pin if you stay up after ten?"

I laughed.

"Honestly, Mr. Mulqueen, I believe you took your ideas of matrimony from the comic supplements. You're all wrong. I thought I had good times when I was a batch in the big city, but married life beats them seven ways. When you have a good wife you have a real pal—the kind that sticks."

"Honest?" Mr. Mulqueen was incredulous.

"I can guarantee it," I said in my most convincing Dekkar Eight voice.

WHEN my wife visited me that day she brought me magazines, ice cream, and some home-made jelly. I shared them with Mr. Mulqueen. I waited until supper-time to send in the jelly by Miss Quest, for I knew that his evening meal consisted of a healthful but unexciting baked potato and a cup of weak tea.

"Say," boomed his voice over the partition, "this stuff is some stuff! What is it? Quince? Where do you get it?"

"My wife made it," I answered. "You ought to taste her rhubarb and pineapple jam."

He made appreciating sounds with his lips.

"I've got some pretty fancy stuff in my store," he said, "but it's not in a class with this. Ummmmm."

"Wait till you sink a tooth into some of my wife's brandied peaches," I said.

"How long do I have to wait?"

"She's bringing out a can to-morrow," I said. "Too bad we can't have any of her three-layer chocolate cake or her lemon meringue pie."

Mr. Mulqueen sighed deeply.

"I haven't had a decent piece of lemon meringue pie in twenty years," he said.

He subsided into silence; he did not even

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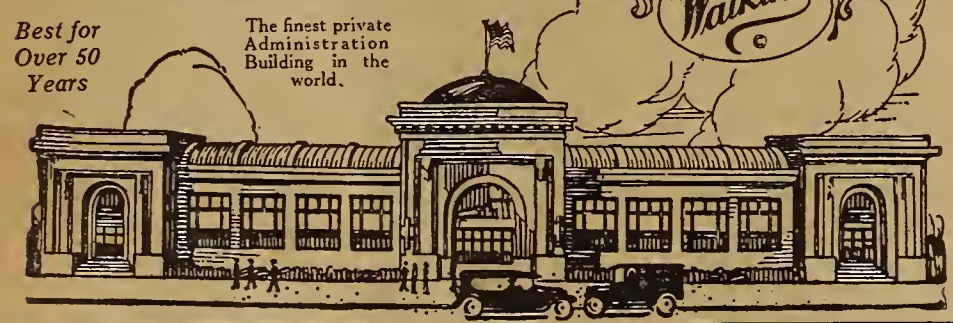

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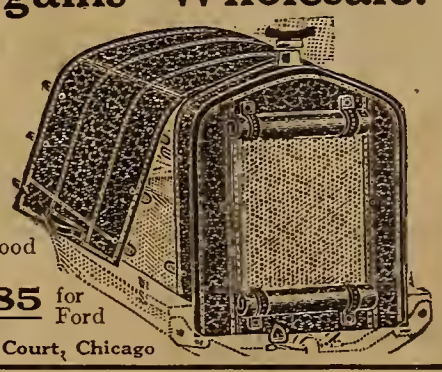

Nemco Bargain Supply House, 401 Laretta Court, Chicago

hum, "I was happy till I met you on the sidewalks of New York;" I knew him to be ruminating.

"The ones I get at the baker's are filled with billboard paste and have crusts like cardboard," he said presently. His tone was doleful.

"I thought you said you could cook. Why don't you make your own pies?" I said.

"I tried," he said. "They nearly killed me."

"Any woman could make a good lemon pie from my wife's recipe," I remarked.

He seemed to consider this statement.

"Maybe I won't be glad to get back to my wife's apple dumplings with molasses sauce," I observed.

Mr. Mulqueen moaned.

"And her chicken *à la* Maryland," I added.

"Aw, cut it out," begged Mr. Mulqueen.

I CHANGED the subject. I told him about my little boy, Ned.

"He's as husky a four-year-old as you ever saw," I told my neighbor.

"Aren't kids a pest?" inquired Mr. Mulqueen.

"Only in the comic supplements," I answered, with a trace of asperity. "My boy is the best fun in the world. Kids a pest? Wait till you have one of your own!"

"I never expect to," said Mr. Mulqueen.

"Then you'll miss just about the finest experience in life," I said.

"Well," sad Mr. Mulqueen, "you ought to know."

"I do know. I know it's great to watch that kid of mine developing. Why do you suppose I talk myself hoarse selling cars?"

"For dough," suggested Mr. Mulqueen.

"Partly. But mostly because I want to give that kid of mine an education. Because I want to build up a business and give him a flying start in life. Why, Tim, my work has been twice as much fun since I've had that kid to work for."

I know when to begin to call a man by his first name.

"He's an inspiration, that kid," I went on. "It's the real thing, I tell you."

"Well, you ought to know," said Tim Mulqueen. "Can he say 'da da' yet?"

"Why, man alive, he can say anything in the dictionary," I said, proudly. "And he can read 'cat,' 'dog,' and 'pig.'"

"I don't know much about kids," admitted Mr. Mulqueen. "I thought for the first five years they did nothing but bawl."

"Ned never bawls," I said. I have to admit that this was an exaggeration.

"You don't tell me?" said Mr. Mulqueen. I answered questions about Ned for an hour.

"You boys mustn't tire yourselves talking," said Miss Quest, when she came in with our gargle.

When she had administered the gargle and gone, I called over the partition:

"Have you noticed what a pleasant voice our nurse has?"

"No, has she?" said Mr. Mulqueen. I judged from his tone that I had derailed his train of thought. I suspected him of thinking about Ned and kids.

DURING our milk-toast breakfast next morning, Mr. Mulqueen did not sing "I was happy till I met you on the sidewalks of New York." There was a strange, unwonted silence in his cubicle. Then he broke out with:

"I wish some of the boys would come out to see me. I've been here a long time now, and no one has come near me."

"It's a long way out here," I reminded him.

"Your wife comes every day," he rejoined.

"Yes," I said, "but there's a lot of difference between a wife and a friend."

He said nothing more the rest of the morning, and I read my magazines. About noon I heard him say:

"There's a lot in that."

"In what?" I asked.

"What you said this morning."

"About what?"

"About a wife sticking by you better than friends," he said. "I've been thinking about it."

The partition hid my smile from Timothy D. Mulqueen.

Miss Quest brought in our lunch. It included some glorious golden French toast.

"My hat, this is wonderful!" I said to her. "Who made it?"

She blushed and said:

"Why, I did."

"Isn't this the real thing in French toast?" I shouted to Mr. Mulqueen. "Miss Quest made it."

"It's hot stuff," agreed Mr. Mulqueen from a crowded mouth. "I haven't tasted anything so good for twenty years."

Miss Quest's blush deepened. She went out.

"There's a fine woman," I said.

"Where?" asked Mr. Mulqueen.

"I mean Miss Quest," I said.

"Some cook!" said Mr. Mulqueen heartily. I judged he was enjoying the French toast.

"She'd make somebody a splendid wife," I remarked.

"She isn't much on looks," said my neighbor, seemingly more interested in his breakfast.

"Why, you're blind!" I said indignantly. "Tim, that woman has a noble face. That's the only word for it. And her smile is beautiful. Have you noticed what fine teeth she has?"

"Why, yes, I have," said Mr. Mulqueen.

"And she's graceful, too," I said. "As graceful as any woman I ever saw."

"I'll have to watch," said Mr. Mulqueen, humbly, I thought. "I don't know much about such things."

"Notice what thick, handsome hair she has," I said. "It's as fine a head of hair as I ever saw."

"You don't tell me?" said Mr. Mulqueen.

MISS QUEST came in with our post-luncheon gargle. When she had gone out, Mr. Mulqueen remarked:

"They are nice."

"What are nice?"

"Her hair and her smile," he said.

He could not see my smile.

"And it's pretty the way she moves around," he admitted.

"What a wife that woman would make!" I said in the manner of the soliloquies of old-fashioned melodrama.

"What makes you think so?" he asked. Was I wrong or did I detect the signs of awakening interest in his tone which every salesman learns to recognize and strains an ear for?

"Well, what qualities does the ordinary man look for in a wife?" I asked.

"Good nature, I suppose," said Mr. Mulqueen.

"Miss Quest is one of the best-natured persons I ever met," I said. "She looks after peevish, helpless patients all day and never loses her smile. What else?"

"Loyalty," said Mr. Mulqueen after an interval of cogitation.

"Miss Quest is faithful to her job. She hasn't missed a day in nine years, they tell me. And it's a hard job, too. Anything more?"

"A wife ought to be a good housekeeper, I suppose," said Mr. Mulqueen, after considering the matter a moment or two. "You know what I mean—neat, economical, and a good cook."

"You're full of evidence this minute that Miss Quest is a corking cook," I said, "and the way she takes care of us and our rooms shows that she could keep a house snug and comfortable. As for being economical, I've heard that out of the little salary she gets here she's saved money. What else?"

"I wonder why she never married," mused my neighbor.

"She never found the right man, I suppose," I said carelessly. "Of course she's had lots of chances. I understand that there's a florist in Greenwich right now who is crazy about her."

Heaven forgive me the fiction.

When Miss Quest brought my fever neighbor his baked potato that evening, I heard them talking together in a low voices for some minutes.

"And none of the boys have come to see me," I heard him say.

"What a shame!" said Miss Quest, and there was real sympathy in her quiet voice.

"Perhaps they don't know where you are, Mr. Mulqueen."

"Oh, they know well enough," he said, "but they don't care. Nobody cares."

"You mustn't say that, Mr. Mulqueen," she said. They talked some more. I didn't mind if she was late with my supper that night.

I made a quick recovery from my scarlet fever; I lost my skin rapidly and efficiently, and raised an entire new crop. My thoughts turned to golf and Dekkar Eights.

I talked to Mr. Mulqueen about Miss Quest; he seemed to enjoy the subject. Sometimes, around gargle-time, I made snoring noises; I heard low-voiced conversation in the next cubicle.

THE day before I was to be discharged, my wife came to the hospital with my clothes. When she pushed open my cubicle door, a low, regular, whistling-rippling noise from the adjoining room told us that Mr. Mulqueen was asleep.

"Helen," I said softly, "please knock that large red book off the table."

"Why, Phil, what in the world for?" She was alarmed.

"Ssssh, tell you later. Only do it," I whispered.

Helen knocked the book off the table. It hit the floor with a gratifying smack. The snoring in Mr. Mulqueen's cubicle stopped abruptly.

"My dear," I said to Helen, raising my voice. "I want you to ask cousin George to dinner at our house next Monday."

"Cousin George?" asked my wife blankly. I have no cousin George.

"Yes, Cousin George Winship of Portchester. Not Cousin George Spiegelmeyer of Rochester," I said, making faces and motions at her. "I want him to meet Miss Quest."

"Oh, Cousin George Winship of Portchester," said my wife. "Certainly. I haven't seen old George in ages."

"I'm very anxious to have him meet Miss Quest," I said. "I think she would make a splendid match for him, don't you?"

"Splendid," agreed Helen. "Couldn't be better. I'd like to see him marry her. She's a splendid girl. But aren't you afraid, Phil dear, that we'll disturb the man next door?"

"No fear," I said, "he's fast asleep. I'm glad you agree with me that Miss Quest would be a good match for Cousin George. The rich old rascal needs somebody to help him spend all the money he's making from his bee farm."

"Oh, is George a bee farmer now?" asked my wife. "Has he given up his poodle kennel?"

"His poodle kennel? Oh, by no means. He still has over a hundred poodles. He keeps two poodle clippers constantly busy."

"But, Phil, do you think Miss Quest will like him?" asked Helen with some difficulty.

"She's sure to," I said. "He's just the man for her. She won't be able to withstand that black mustache of his. She has as good as told me that she is only waiting for the right man to come along."

"Good old George," said Helen, "he'll get a peach of a wife in Miss Quest. He won't be slow in asking her, either."

"No," I agreed, "I shouldn't be surprised if it were a case of love at first sight, and a marriage in a month. Poodle fanciers are so warm-blooded and temperamental, you know."

"Good," said Helen. "I love to play matchmaker. I'll write to cousin George this very night."

"And I'll ask Miss Quest after supper," I said.

We heard a stirring in the next cubicle.

"Oh, I hope we haven't disturbed your nap, Mr. Mulqueen!" I called out.

"Not at all, not at all," he said gruffly, and his voice, I noticed, had lost its friendly joviality. He muttered something to himself. I thought it sounded like "poodle fancier."

HELEN left, and I fell asleep, and snored with such obvious enjoyment that when Miss Quest came in with the mid-afternoon gargle she did not wake me to administer it, but went into Mr. Mulqueen's cubicle and talked.

After supper, my last in the hospital, I said to Miss Quest.

"I hope you can come to see us some time. I know how dull it must get out here. When can you come? Monday for dinner?"

"I'm not going to be here much longer," she said with her smile and a blush.

"No?" I said. "What hospital are you going to?"

"I'm not going to a hospital," said Miss Quest. "I'm going to be married."

I met her in Sound Beach a year later, while I was demonstrating a Dekkar Eight out there. She was wearing a green tricotine suit and was pushing the largest perambulator I have ever seen.

[THE END]

Useful Bulletins You Can Have for the Asking

BY MAKING use of the various farm bulletins issued by your State and by the U. S. Department of Agriculture, you can, in a comparatively short time, build up a valuable farm reference library and at practically no expense. If you are not now receiving the literature issued by your state agricultural college or experiment station, it will pay you to write for it. You will find much that is helpful in solving daily farm problems. The following list contains only federal publications, as this space is much too small to list the numerous state bulletins.

THE following list consists of bulletins that we believe are of interest to the practical farmer. They can be obtained free, excepting those otherwise marked, by checking the ones you want and mailing this list to your congressman or to the Division of Publications, U. S. Department of Agriculture, Washington, D. C. It is better to send your request to your congressman, because congressmen receive a larger supply for distribution than do the other offices.

Monthly List of Publications. This circular describes all the new publications of the Department of Agriculture. It will be sent regularly to all who ask for it.

Organization of Rural Community Buildings. Farmers' Bulletin 1192. This will be found useful by all those who are thinking of building a community house, or of starting a community organization.

Insects Injurious to Deciduous Shade Trees and Their Control. Farmers' Bulletin 1169. A complete list of tree pests, illustrated and with descriptions of the best ways to destroy them.

Timber Depletion and the Answer. Department Circular 112. A very interesting summary of the report prepared in response to Senate Resolution No. 311.

The Corn-Ear Worm as an Enemy of Vetch. Farmers' Bulletin 1206. Vetch is now an important forage crop in the Southeastern States. The corn-ear worm is its worst enemy. This bulletin tells how to combat it.

Protection of Mesquite Cordwood and Pests from Borers. Farmers' Bulletin 1197. If you live in the Southwest you probably make considerable use of mesquite. Certain borers completely destroy mesquite wood in a few months. By proper treatment this loss can be prevented, and this bulletin tells how.

Making American Cheese on the Farm. Farmers' Bulletin 1191. Cheese-making is not so difficult as many suppose. At one time practically every farm made its own supply. If you have a surplus of milk, and want to try it, write for this bulletin.

Madam! Do You Waste?

CAN you *afford* to waste these days? Your husband is saving in the field. Are you helping in your kitchen?

For instance, your left-over bread. Don't throw it away. Here's a healthful, delicious way to use it—and save more expensive foods.

Try this dish for your farm-help—but be sure to use *the raisins*, for *there's* the charm.

What a Camp Cook Proved

A California camp cook's worry recently was left-over bread. But one day he put in some raisins. The men ate all and called for more. He had to serve it twice a week. He had to *bake bread* for raisin-bread pudding after that. Many ate two helpings, and he saved on more expensive foods.

And he made a more *contented crew*. The camp soon became famous for its food, due mainly to that dish. It could always get men easily. Help *wanted* to work there. And the camp profited greatly—due to *raisin*-bread pudding!

Try and See

Try this dish on your farm hands. Look for like results. New food like this brings new vim and energy to your men.

Let them *taste* raisin-bread pudding made like this. The raisins add *nourishment* as well as luscious *flavor*—1560 calories of energizing nutriment per pound. So this dish is a *man's food*, good for red blood.

Raisins are 30% cheaper than formerly—see that you get plenty in your foods.

Sun-Maid Bread Pudding

To a pint of bread crumbs add a well-beaten egg, a cupful of milk, 1 tablespoonful of molasses and 1 cupful of SUN-MAID Seeded Raisins cut in halves. Mix well together, then stir in ½ teaspoonful each of cinnamon, salt and soda. Turn into a buttered pudding boiler and cook 2 hours. Serve with the following sauce: Beat to a cream ½ cupful of butter and gradually beat into it a cupful of sugar. Add any preferred flavoring. When it is smooth and creamy pile it roughly on a pretty dish, place it where it will get cold, and before serving grate over it a little nutmeg.

100 Recipes Sent FREE

There are a hundred different ways to serve delicious raisin foods. We've put them all into a valuable book that you should have to help you feed your men. This book will save time, trouble and expense. You need a copy so send for it now. The book is FREE. Just mail the coupon for it.

SUN-MAID RAISINS

Sun-Maids are the daintiest, the plumpest, tenderest raisins—made from finest California table grapes. Ask your dealer for them.

Seeded (*seeds removed*); Seedless (*grown without seeds*); Clusters (*on the stem*). Clean, sweet, *wholesome American* raisins, the kind you *know* are good.

See that you get the *genuine* Sun-Maid brand.

CALIFORNIA ASSOCIATED RAISIN CO.
Membership 13,000 Growers
DEPT. B-310, FRESNO, CALIFORNIA

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Dept. B-310, Fresno, California.

Please send me copy of your free book, "Sun-Maid Recipes."

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No Cold-Food Complaints with Pyrex

PYREX keeps the food hot and appetizing for all who come in late for meals. With Pyrex you bake and serve in the same dish. You don't muss up and cool the food by changing it from pan to dish. On the table, Pyrex retains the oven heat and the appetizing oven appearance of the food.

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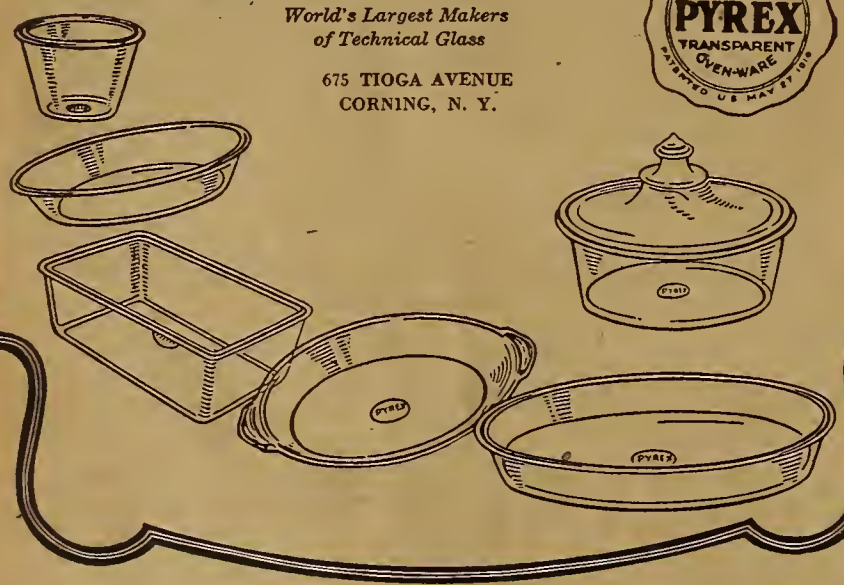

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The little matter of 15c will bring you the Pathfinder thirteen weeks on trial. The Pathfinder is a cheerful illustrated weekly, published at the Nation's center, for people everywhere; an independent home paper that tells the story of the world's news in an interesting, understandable way. Now in its 29th year. This splendid National weekly supplies a long-felt want; it costs but $1 a year. If you want to know what is going on in the world, this is your means. If you want a paper in your home which is reliable and wholesome; if you would appreciate a paper which puts everything clearly, strongly, briefly, entertainingly — here it is. Splendid serial and short stories and miscellany. The Question Box Answers YOUR questions and is a mine of information. Send 15c to show that you might like such a paper, and we will send the Pathfinder on probation 13 weeks. The 15c does not repay us, but we are glad to invest in new friends.

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KATHERINE KELLOGG
M & K CORSET CO.
210 Kellogg Bldg. Jackson, Mich.

Each guest was allowed three tries at "sugaring" the pancake

A Pancake Party

To Combine With Hallowe'en Fun

By Emily Rose Burt

THE invitations bore a little grinning pancake face, and this is what they said:

Come and share the pancake smile,
There'll be naught but fun the while;
Scattered in and out between
You'll see signs of Hallowe'en.

The first stunt was sugaring the pancake. A realistic giant pancake, a foot and a half across, of white cotton batting browned in the oven on top and edges, hung across the wall.

Each guest was allowed three tries at "sugaring" it by hitting it from across the room with a small rubber ball dipped in flour. The men were more successful than the girls in their aim.

For the ever-adventurous ones, apple-bobbing in a round tub in the kitchen was provided, and even those who didn't bob liked to watch the fate of the bobbers. A new feature was added to this pursuit by pinning to the back of each bobber the name of a variety of apple. Thereafter he or she had to try to guess it by the way he was treated by the other guests. For instance: Northern spy was scornfully pointed out and shunned. Snow apple was shivered at. Sweet apple was petted. Pippin was admired and complimented.

This could be played the other way around, giving each "apple" its name secretly, and letting it act out its nature for the others to guess.

A very jolly contest was a pancake flapping. On the table about twenty-five pennies lay, heads up. The object was for the contestants in turn to flip them all over to be "tails up," and the person who was the quickest flapper, timed by a judicial watch, was awarded a tin pancake turner tied with gay ribbon.

Presently the hostess announced that some crisp pancakes would be passed around. She appeared with a large platter full of little brown paper pancakes, each with a splash of yellow paint in the center, simulating butter. The back side contained a *crisp* sentence telling the recipient of some stunt he or she must perform when called on, and in some cases giving an amusing rhyme to be learned and recited with appropriate gestures. It was in these stunts that much of the Hallowe'en flavor came in.

These stunts filled the time until just before supper, when each feminine guest was asked to choose a masculine milliner to make her a pancake hat. Brown paper and pins and scissors were furnished. The results were worn with ludicrous effect.

A "pancake walk" carried everyone out to the dining-room. On an aluminum pancake griddle, in the center of the table stood a Hallowe'en witch doll, in peaked black cap and gay red petticoats, briskly sweeping the griddle with her miniature broom. (A doll's broom can be used, or a small broom made from a few broom straws and a little stick.)

There was no fake about the pancakes. They came in piping hot from the kitchen where three people were busy baking them and serving. Butter and sugar and hot maple syrup were on the table, and hot coffee was also served.

Everyone was asked to keep tally on his or her pancake score, as the one who had the record was to win a prize. This was ultimately awarded, and proved to be a box full of maple-sugar patties.

AFTER eating so many pancakes it was not surprising that everyone saw "grandfather's ghost." Silently, as the clock struck twelve, a large sheeted figure glided in, and, with admonishing up-raised finger, gave commands for silence in hollow undertones.

Then, gliding behind the seated company, the ghost began a series of gruesome proceedings. One person he touched on the neck with a clammy forefinger (the old trick of ice in a cloth); into another's hand he slipped a wet oyster (whispering, "Dead man's eye!"); to a third he handed a bone (in reality a chicken drumstick); and wound a coil of snaky hair around another's neck.

Then, in solemn tones, he issued a series of orders which he asked to have obeyed in the spirit in which they were given. As they were of a rather ridiculous nature when performed by a crowd, they produced a lot of fun. Such commands were:

"Say 'oo-la-la,' all together!"
"Hands up—grin!"
"Roll eyes!"
"Wring hands!"
"Say 'fare thee well!'"

After he had issued a sufficient number of orders, and the guests were in wild glee over trying to obey them in unison, the "grandfather's ghost" backed out and away.

By this time folks decided it was time to brave the ghosts of the homeward trip and said a hilarious good-by to their hostess.

These Candies Will Sweeten Your Fun

Tested in Farm and Fireside's Experimental Kitchen

BITTERSWEETS—An attractive variety of candies may be made by dipping sweet fruits in bitter chocolate. Use for this purpose dates, citron, candied orange peel, or crystallized fruit. Melt unsweetened chocolate in a double boiler. Keep the chocolate just warm enough to prevent solidifying. With a silver fork drop pieces of fruit into the chocolate. See that each piece is completely coated, then remove to waxed paper to harden.

* * *

WALNUT BRITTLE—Boil one cup corn syrup until it crackles in cold water. Pour over one-half cup broken walnut meats placed in a greased tin. When cold break into pieces.

* * *

HONEY PECAN ROLLS

1 cup strained honey
½ cup butter
½ cup boiling water
⅛ teaspoon soda
⅛ teaspoon cream of tartar
1 cup chopped pecans

Boil the honey, butter, water, soda, and cream of tartar until it forms a ball when dropped in cold water. Boil the mixture ten minutes before testing for the ball. Add the pecan meats, and pour on a buttered platter. When cool, roll up tight; then slice across with a sharp knife.

How Man First Seeded Grain—10,000 Years Ago

HOW did man learn to sow in order that he might reap?

We may hesitate here to guess at the answer to that question. But a very great deal has been made of the fact that wherever sowing occurs among primitive people in any part of the world, it is accompanied by a human sacrifice or by some ceremony which may be interpreted as the mitigation and vestige of an ancient sacrificial custom. This is the theme of Sir J. G Frazer's "Golden Bough."

From this it has been supposed that the first sowings were in connection with the burial of a human being, either through wild grain being put with the dead body as food, or through the scattering of grain over the body. It may be argued that there is only one reason why man should have disturbed the surface of the earth before he took to agriculture, and that was to bury his dead; and in order to bury a dead body and make a mound over it, it was probably necessary for him to disturb the surface over a considerable area.

NEOLITHIC man's chief apparatus for mound-making consisted of picks of deer's horn and shovels of their shoulder blades, and with this he would have found great difficulty in making a deep excavation. Nor do we find such excavations beside the barrows. Instead of going down into tough subsoil, the mound makers probably scraped up some of the surface soil and carried it to the mound. All this seems probable, and it gives just that wide area of bared and turned-over earth upon which an eared grass, such as barley, millet, or primitive wheat, might have seeded and grown. Moreover, the mound makers, being busy with the mound, would not have time to hunt meat, and if they were accustomed to store and eat wild grain they would be likely to scatter grain, and the grain would be blown by the wind out of their rude vessels over the area they were disturbing. And if they were bringing up seed in any quantity in baskets and pots to bury with the corpse, some of it might easily blow and be scattered over the fresh earth. Returning later to the region of the mound, they would discover an exceptionally vigorous growth of food grain, and it would be a natural thing to associate it with the buried person, and regard it as a consequence of his death and burial. He had given them back the grain they gave him, increased a hundredfold.

AT ANY rate, there is apparently all over the world a traceable association in ancient ceremonial and in the minds of barbaric people between the death and burial of a person and the plowing and sowing of grain. From this it is assumed that there was once a world-wide persuasion that it was necessary that someone should be buried before a crop could be sown, and that out of this persuasion arose a practice and tradition of human sacrifice at seed-time, which has produced profound effects in the religious development of the race. There may have been some idea of refreshing the earth by a blood draft or revivifying it with the life of the sacrificed person. We state these considerations here merely as suggestions that have been made of the way in which the association of seed-time and sacrifice arose. They are, at the best, speculations; they have a considerable vogue at the present time.

The art of sowing, as outlined above, was probably learned by Neolithic man some 10,000 to 12,000 years ago. It may have been thousands of years earlier or thousands of years later; we cannot be sure.

Taken from H. G. Wells' "Outline of History," 2 volumes $10.50. The Macmillan Company, New York.

Two Dishes for Cool Days

Tested in Farm and Fireside's Experimental Kitchen

WITH the first fall days our appetites increase by leaps and bounds, and the fall vegetables are right at hand to meet them. Not only late plantings of corn and beans, but also squash, sweet potatoes, and pumpkin add to the variety of these heartier meals, and here are two dishes which we found especially delicious and satisfying in the experimental kitchen:

Delicia Squash

2 cups cooked mashed squash
1½ cups boiled rice
1¼ cups milk
1 tablespoon chopped onion
6 tablespoons bread crumbs
2 beaten eggs
1½ teaspoons salt
⅛ teaspoon pepper

Mix the squash, milk, rice, egg, and seasonings together. Place in a buttered baking dish, sprinkle bread crumbs over the top, and bake in a medium oven forty minutes.

Miss E. C. Armbruster, Illinois.

Potato and Onion Escallop

6 medium-sized potatoes
3 small onions
2 teaspoons salt
¼ teaspoon pepper
1½ cups hot milk
6 thin slices bacon

Butter a casserole, put in a layer of thinly sliced potatoes, then add a thin layer of sliced onions, and season with salt and pepper. Add another layer of potatoes and onions with seasonings, and repeat until all are used. Then pour on milk, and cover the top with the slices of bacon. Bake in a moderate oven at least one hour. Remove cover a few minutes to brown.

21 Letters About Your Baby

And How You Can Get Them

THE EXPECTANT MOTHERS' CIRCLE: Any woman eligible may become a member, receiving each month a letter of advice on the care of herself and the preparation for her baby. Several practical little pamphlet circulars showing designs for maternity dresses and a common-sense layette are some of the helps sent with the letters. No matter at what period you enter, everything from the first month will be sent. No mention of the Better Babies Bureau is made on the envelopes in which the material is mailed. Enclose a self-addressed envelope with *Fifty Cents* in stamps, for postage, *and state what month you expect your baby.*

THE MOTHERS' CLUB: Every mother of young children is eligible. Pamphlets, together with monthly letters of instruction on the care and feeding of babies *under one year of age* (covering such subjects as colic, constipation, weaning, teething, etc.), will be sent to any mother who sends *Fifty Cents* in stamps and states the age of her baby. There are also leaflets giving diet lists, and other helps for babies from one year of age to three years. This literature is all included in the Mothers' Club's monthly service, but if the letters are not desired the additional literature will be sent for *Ten Cents.* A self-addressed stamped envelope will bring a prompt reply to every inquiry. Address all inquiries to

BETTER BABIES BUREAU

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How this test beautifies the teeth?

Millions of people have accepted this offer — have made this ten-day test. They have found a way to whiter, cleaner, safer teeth.

We urge you to do likewise. Watch how your teeth improve. Learn what this new method means to you and yours.

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Teeth are tarnished by a film. By that viscous film you feel. It clings to teeth, gets between the teeth and stays. Old ways of brushing do not end it.

Film absorbs stains, making the teeth look dingy. It mars the beauty of millions. But it also is the cause of most tooth troubles.

Film is the basis of tartar. It holds food substance which ferments and forms acid. It holds the acid in contact with the teeth to cause decay.

It forms a breeding place for germs. They, with tartar, are the chief cause of pyorrhea. Very few people who brush teeth daily escape these film-caused troubles.

How to fight it

Dental science, after long research, has found ways to fight that film. Authorities have amply proved those methods. Leading dentists everywhere now advise their daily use.

They are embodied in a dentifrice called Pepsodent. And other most important factors are included with them.

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Pepsodent combats the film in two effective ways. It also aids Nature in ways considered essential.

It stimulates the salivary flow — Nature's great tooth-protecting agent. It multiplies the starch digestant in the saliva, to digest starch deposits that cling. It multiplies the alkalinity of the saliva, to neutralize the acids which cause tooth decay.

Twice a day, Pepsodent is bringing millions these much-desired effects.

The test is free

Simply mail the coupon for a 10-Day Tube. Note how clean the teeth feel after using. Mark the absence of the viscous film. See how teeth whiten as the film-coats disappear. Watch the other good effects.

You will realize then that this way means a new era in teeth cleaning. And we think you will adopt it. Send coupon now.

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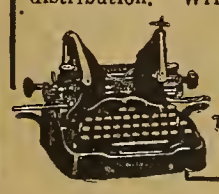

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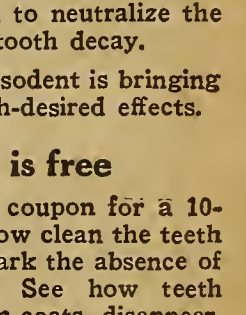

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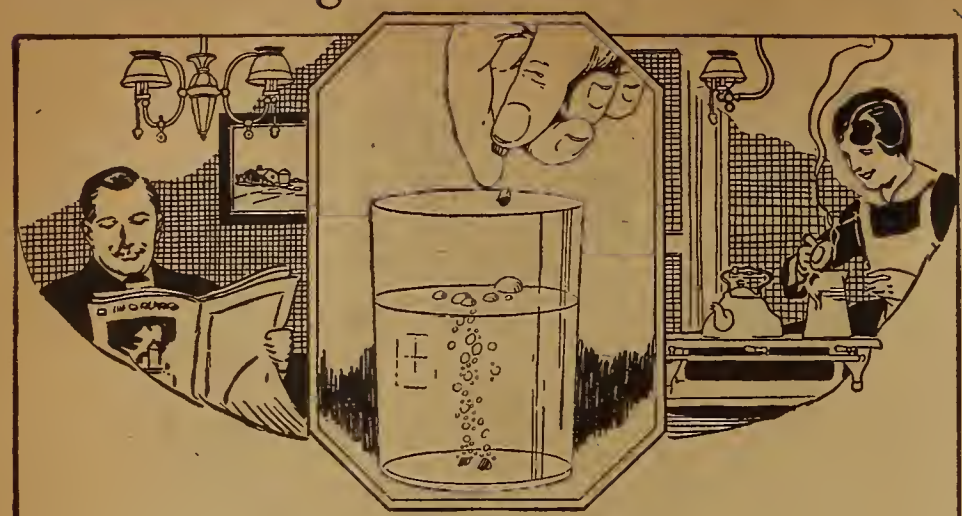

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It means that with a small supply of Union Carbide (crushed stone) and a simple mixing-machine, you can have all the fuel you need for cooking; all the light you need for the house, barns, drives and out-buildings.

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A simple machine mixes Union Carbide with water and produces gas as you need it—no more, no less. It works automatically and needs but the slightest attention.

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Union Carbide does away with messy oil-lamps and the burning of coal-ranges in summer. It gives you the cool, clean kitchen of the city-woman. It—Oh, we can't begin to tell the whole story here.

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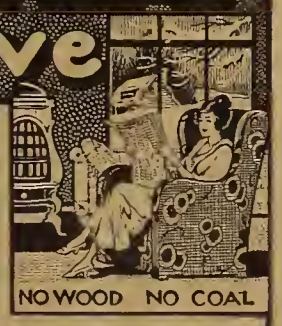

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30 Days Trial at Our Risk—The Instant-Gas is simple, quickly installed or removed, and easily turned on or off. No drilling, cutting or other harm to stove. Odorless, smokeless. Attached to flue same as coal. Money back guarantee. Already giving satisfaction in thousands of homes.

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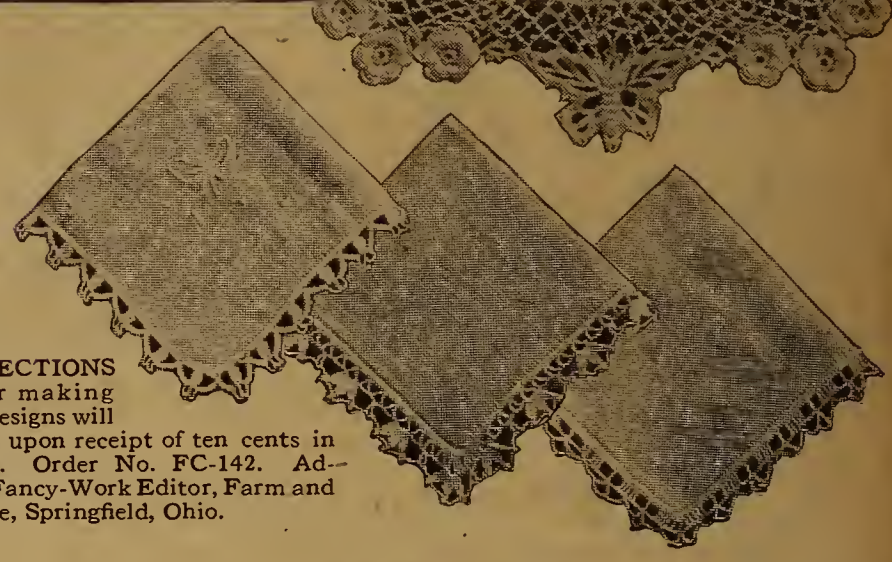
Collar, Cuffs, and 'Kerchiefs to Tempt Your Needle

By Helen P. Metzger

THIS month it's a charming collar and cuff set in Irish crochet—Irish crochet which is made individual by unusual butterfly motifs and the airiest of filling. This Peter Pan set may be worn on either suit-coat or dress, and it is marvelously easy to make.

AND here are three dainty trims for your handkerchiefs which are easily and quickly made. In heavier thread they make very pretty finishes for towels and other household linens.



DIRECTIONS for making these designs will be sent upon receipt of ten cents in stamps. Order No. FC-142. Address, Fancy-Work Editor, Farm and Fireside, Springfield, Ohio.

My Meat Chopper Saves Time

By Mary M. Wright of Ohio

IN NEARLY every household nowadays one finds the useful food chopper, but many do not know of its full value except for chopping meats. I have made it a great labor and time saver in my kitchen by putting it to various uses. My chopper contains three knives of different degrees of fineness, which I use according to how I wish the foods chopped—coarse or fine.

Instead of grating such things as chocolate, lemon and orange rind, horseradish, cheese, etc., I pass them through the machine, using the finest cutter. Chocolate prepared in this way only takes a few minutes to melt; the cheese comes out in smooth, white flakes that are especially nice to sprinkle over baked dishes and in making cheese sauces. The horseradish and onion does not get in unpleasant contact with the eyes as when a grater is used, or in unpleasant contact with the fingers, either.

When making a cake in which chopped fruits are required, I pass these through the chopper, using the coarse or fine knives according to the way I wish them chopped. Nuts are also ground up on the chopper.

If I have trouble getting fresh shredded cocoanut I buy a cocoanut and make my own. It has a much better flavor than stale cocoanut.

When I am making marmalades, butters, and jams in the summer I pass the fruit through the machine. Any fruit that is required crushed or strained may be prepared in this way, thus saving much time. Fruit for ices and fruit punches may be passed through, using the coarsest knife for the fruits required for the punch, and the finest for the ices.

When preparing vegetable soups, I find it economy of time to pass them through the chopper, using the coarse knife, except in the case of parsley or something I wish very fine. Carrots cook much quicker when cut up in this manner than when sliced. If you do not have a slaw cutter, try chopping up the cabbage in this manner for slaw or salad, using the largest knife. In making chopped pickles I pass the vegetables, one variety at a time, through the chopper—it saves long slow cooking and looks much nicer.

When I wish a little spinach or beet juice for coloring purposes, or a little onion juice for flavoring, I pass the vegetables through the chopper, catching the juice that runs out in a deep saucer or spoon.

ALL stale bread is saved and crisped in the oven, and placed in a jar. When the jar is full the bread is all passed through the food chopper. The crumbs are returned to the jar, and are ready when I wish crumbs to roll croquettes and such like in. Crackers are also ground fine on the chopper. Stale cake is dried in the oven and passed through the machine in the same way as stale bread, and used in making puddings.

Of course, we know the value of the chopper when it comes to meat. Suet is nice passed through the chopper, whether for use in puddings or to be tried out, and much time is saved.

When buying a machine select one that can be taken entirely apart, so that it can be easily cleaned, and keep in a dry place. It need not be cleaned every time used; pass a piece of stale bread through it instead.

A VINEGAR ECONOMY—Rinse every jar and dish that has contained fruit, with a little hot water and pour into a half-gallon jar, and let it stand till it becomes vinegar. Strain, and it is ready to use. This saves many a penny, and the vinegar is as good as you purchase at the stores.

L. G. C., Massachusetts.

Questions Farmers Ask Us

Maybe the answers might help you, or perhaps you have a question of your own to ask

YOUR questions about fruit-growing, vegetable or flower gardening, are answered by the man with the wheel hoe shown below—Mr. Frederick Frye Rockwell, FARM AND FIRESIDE'S horticultural expert. Mr. Rockwell likes to make things grow, as you might easily suspect from a glance at this picture, and, furthermore, he likes to help other people with their gardening problems. His wide experience in many lines of horticultural work makes him highly qualified to do both well.

I won't attempt in this short sketch to tell all the interesting things Mr. Rockwell has done. Skimming over the top, it is interesting to note that he was born in Brooklyn, New York, April 2, 1884. But he repented at an early date, or his parents did, and grew up to manhood on a farm. After a year or so at Wesleyan University, Connecticut, he grabbed a hoe with one hand and a pen with the other, and has been wielding one or the other ever since. He not only is considered an authority on practical horticulture, but also on several occasions he has made it his sole means of livelihood. He *knows* what will work and what won't.

His work has carried him into many interesting fields. He has had charge of the testing grounds of one of the largest seed companies in the United States; later he was secretary of the American Association of Nurserymen. He frequently has contributed articles to the leading horticultural journals, and is the author of several books, including "Home Vegetable Gardening," "Gardening Indoors and Under Glass," etc.

At present Mr. Rockwell is employed at Seabrook Farms, Inc., of Bridgeton, New Jersey, one of the largest truck farms in the world. This company is interested also in a large orchard project, and in growing ornamental shrubs and flowers. His wide experience makes Mr. Rockwell eminently qualified to help you solve your gardening and fruit-growing problems.

At last we are able to show a good picture of Mr. Rockwell as he looks at the business end of a wheel hoe in his own garden, and unobstructed by a hat, cabbage, cauliflower, or other object behind which he usually hides when his picture is taken

OUR staff of Corresponding Editors (their names appear below) is always ready to answer any questions that you care to ask about farm or household problems. Your letter will be answered direct. In writing, give full details and enclose stamped self-addressed envelope. Address FARM AND FIRESIDE, 381 Fourth Avenue, New York City. THE EDITOR.

About Seed Potatoes

Are my potatoes infected with the dry rot? The potato has a small rotten spot and black streaks through the flesh. Some of them are hollow, but none are scabby. What treatment will prevent this? Will they be good for seed?

They are the Rural New Yorkers, and I have raised these for five years without changing seed.

Will potatoes run out? *M. P., Illinois.*

REPLY BY F. F. ROCKWELL: I cannot tell from your description which of the several diseases affecting potatoes may be the trouble with yours. Certainly, if there are black streaks showing through the flesh I would not attempt to use them for seed, particularly this year, when good, clean seed can be bought at a very reasonable price.

While it is generally thought that potatoes will "run out" after being grown a number of years in one locality, I do not think there is much danger of this if good-sized tubers are selected each fall, and from hills which have been planted late enough so that the vines are still slightly green when they are dug. Potatoes that have fully matured before they are dug do not make good seed.

Hens Don't Lay

I have a flock of 250 hens. They are bred to lay. I get one or two settings of eggs every year from the agricultural college, and select the best roosters and hens to breed from. I use the Hogan system in the fall, culling all poor layers. I do not get the egg yield that I should. Will you be so kind as to give me one of your best balanced rations for egg production? *H. J. R., Oregon.*

REPLY BY V. G. AUBRY: The following ration is one used at the Vineland Egg-Laying Contest, at Vineland, New Jersey, where they have had an extremely good production during the past four years. The mash feed is composed of equal parts, by weight, of bran, middlings, corn meal, ground oats, and meat scrap. Feed in hoppers or self-feeders, leaving before the birds at all times.

In addition to this, a scratch feed of two parts of cracked corn, one of wheat, and one of oats, fed twice daily, about three pounds in the morning and six pounds at night per 100 birds.

Besides this, if you can get buttermilk or sour skim milk, feed it to them and reduce the meat scrap by one half.

Successful plant-disease control can be done only by community co-operation.

FARM AND FIRESIDE

The National Farm Magazine

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You are invited to ask questions of any or all of these in their respective fields. State your problem clearly and fully, enclosing a stamped self-addressed envelope for reply. Address each editor in care of Farm and Fireside, 381 Fourth Avenue, New York City

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That's half the fun. Before long you get so you thread a film in a jiffy, set the lens so your pictures show up nice and clear, and change reels quickly. You'll have good reason to swell out your chest when you're giving a show, because it isn't every boy who can own and run a real movie machine.

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Do not send any money. Simply cut out the coupon below right now and mail it to me. I will tell you by return mail how to get your machine, free and postpaid. Hurry! Be the first boy in your neighborhood to own a real movie machine.

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"Advertising Helped Us"

By Mary C. Rucker, Milaca, Minnesota

A VERY successful poultryman, whose wife's name is Helen, when asked the reason for his success, replied: "Early to bed and early to rise, work like Helen, *advertise.*"

Like the poultryman, advertising built our success.

A neatly painted bulletin board by the R. F. D. box, and about three rods from the house, has made selling direct profitable to the customer and to us. This board was painted a dark red, and products for sale were neatly written upon it with white chalk.

But the following factors were almost equally important: We were close to a well-traveled auto road, we sold only good products put up in an attractive manner, and we emphasized cleanliness, and courtesy to customers.

We had 20 acres on a beautiful lake, the tract consisting of from three to four acres of various kinds of berries, and about the same of garden. Plowing and cultivating was done with one horse, leaving a little hoeing to be done. During the busy season we hired a bright, attractive girl to wait on customers and to answer the phone, so packages would be ready when the customers called. We had from ten to fifteen berry pickers every summer, who brought their lunch and were given permission to pick berries to eat with it.

During the summer the following products were sold at about the same price that the stores charged: Berries, vegetables, dairy products, and honey.

Vegetables were freshly gathered, consumer selecting what he wished, and paying for it, thereby eliminating a book account.

A pet deer, several varieties of standard-bred poultry, Chinese pheasants, and a beautiful flower garden were good advertisers. Many a snapshot picture was taken of the pet deer.

IN ADDITION to vegetables and berries, flowers, cream cottage cheese, butter, eggs, poultry, and milk were sold at a good profit. The customers were well pleased, and many of them came every summer during the four years we were there. As one lady remarked the first time she called:

"I was so glad to see that bulletin board, as I knew I could feel free to call and see your beautiful flowers, trees, and garden. Had it not been there I should have felt like an intruder."

We found that if one has an auto, delivering the products eats into the profits, so we encouraged sales at the farm. As Saturday was our poorest day, it was general clean-up day. Berries not sold were canned or made into jelly, finding a ready market.

In winter we planned how better to please our customers, and to make a greater success each year.

Here's One Good Way to Cut Your Meat Bills

By George A. Starring

MORE than seventy farm families in Douglas County, South Dakota, have organized a community meat ring. The purpose of this organization is to afford a regular supply of meat to its members at reasonable prices.

As a result of this co-operative enterprise, Douglas County farmers last winter got their steaks at 18 to 25 cents a pound, while the local retail market price was 40 to 50 cents per pound. The prices of other cuts are interesting—roasts, 13 to 18 cents; boiling meats, 9 to 13 cents; soup bones, 5 cents; suet, 5 cents a pound, etc.

The ring has a manager who attends to the buying of animals, their killing, and the cutting and apportioning of the cuts. He buys on the open market, selecting only the best. The killing has been done this winter on Friday, and the cutting and distributing on Saturday.

The territory supplied by the ring radiates from five to eight miles in all directions from the point of distribution, which itself happens to be two and a half miles from a town. The members of each group take turns getting the meat for their section.

THE problem has not been meat values, but rather the disposing of the entire carcass so that there will be no waste. The manager disposed of the matter by arranging a scale of prices on cuts of various kinds so that every buyer is satisfied whether he gets soup meat or T-bone steaks. The result has been that cheaper cuts sell as well as the better ones.

The business month of the meat ring ends on the twenty-eighth day of each calendar month, when the manager sends itemized statements to the banks of the various patrons, where they are honored as sight drafts and paid. The manager works on a commission, the amount of which depends upon the quantity of meat handled—approximately two to three cents a pound for dressed meat. At present prices the hide and offal take care of the commission, while the money obtained from the sale of the heart, liver, tongue, and suet pays for string, wrapping paper, and other incidental expenses.

The project has had the active assistance of the county farm bureau, which has joined the ring members for the purpose of erecting a building for slaughtering, cooling, and cutting. It will hold sufficient ice for summer use.

How They Made Their Wool Pay

FACING a severe loss on their wool, sheep farmers of Rockingham County, New Hampshire, made arrangements with a mill in their own State to have the wool scoured and woven into blankets. These blankets are being sold direct to the consumer at a price which brings the grower an average of 50 cents a pound for his wool. Other New Hampshire counties are planning to join the movement, and reports from Illinois and other States show that the idea is spreading.

In some cases, the wool has been made into garments, the farmer receiving the equivalent of the value of his wool in clothing. A double saving is effected by this method—the wool bringing a higher-than-the-market price, while the suits are obtained at wholesale price. Usually this business is transacted under the auspices of the local or state farm bureau. If you aren't satisfied with the price your wool is bringing, why not talk over this plan with your county agent? Or if you haven't a county agent, write to FARM AND FIRESIDE, and we will try to put you in touch with the best sources of information. S. R. J.

Says a New York farmer: "It's reached a point where it requires less effort to buy a registered dairy calf and sow alfalfa than to explain why I don't—so I've done both!"
Agrigraphs.

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It is warm as an overcoat, cheaper than most sweaters, wears like iron and can be washed.

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Rye Does the Trick

By Earl Rogers of Ohio

WITH the present high prices of fertilizer the use of a cover crop is worth considering. One that is sure in almost any locality is rye.

If this is sown early—say about the middle of August—there will be an abundant growth for spring. If the sowing is done at about the time wheat is sown, and the field is to be cropped to something that will be plowed rather late in the spring, then there is no use of sowing so early.

It is possible to get a mass of rye so heavy that it must be clipped for feed before plowing. Probably it can be plowed under all right, but it is risky to turn under a large mass of green stalks. This mass makes a layer a few inches under the following crop, and in a dry year will almost cut off the circulation between the top slice of soil and the lower part which supplies it with moisture.

The clovers are ideal cover crops; but there are so many times when the clovers fail that we have adopted rye as a sure thing. So far as legumes are concerned it is not in that class at all, but the benefit to the land simply for the humus content is enough to make it worth while.

When there is time for its growth I think a bushel an acre is plenty to sow. Even less than that will make a fine growth with enough rain in the fall to start it off well.

I use it in corn oftener than in any other place. There are drills to sow in corn rows, but they don't seem to be so satisfactory as the older method of cultivating the rye in with a one-horse cultivator.

I take a six or eight quart pail for a 50-rod row, and by throwing the hand low I can sow two rows at a time. I sow a few rows and then cover with a 14-tooth drag cultivator. I like to set the outside teeth up a couple of inches, as it saves the corn roots.

A Handy Root Cellar You Can Easily Build

OFTENTIMES in regions where cellars are impossible to locate under the house, the upground cellar is resorted to for the storage of fruit and vegetables. These cellars or storage houses may be built in the form of a refrigerator, using wood construction or combinations of materials.

The cheapest material, as well as the most satisfactory, seems to be the type constructed of some class of masonry, either stone, concrete, or tile, or combinations of these materials. The structure is then banked up on the ends and sides, or even the roof, with earth, since a layer of earth is a cheap means of maintaining an even temperature.

The essentials of a good storage cellar are drainage, ventilation, insulation, and a proper amount of moisture. The accompanying photograph shows a cellar constructed of native field stone built up in arch form and covered with earth. The entrance doorway is toward the north, and forms a vestibule or air lock. Ventilating flues of brick construction are shown. As the cellar is carried down a few steps below the surrounding grade, a drain is provided to carry off seepage water that might find its way in during wet seasons. The earth floor holds moisture, and insures the vegetables against shriveling.

The bin floors are raised a few inches off the dirt floor, and the bin walls are also independent of the side walls. This secures better ventilation for the stored products, and is an additional precaution against frost, well to be observed in regions where the thermometer frequently drops below zero.

Hollow tile and concrete storage cellars have been built with success. These materials may be handled easier than stone, and may be used in a greater variety of construction work than stone, owing to their adaptability of steel reinforcement.

F. W. IVES.

A vegetable cellar like this can be built on your farm at small expense

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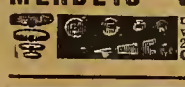

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Every Month is Canning Season

[CONTINUED FROM PAGE 11]

If the pot of steaming and nutritious soup is to be served at the least cost in the winter, the vegetables for it are canned, not wasted, in the fall. Here is a combination of vegetables which are found on most farms, and, incidentally, it is one of my favorite canning recipes:

1 peck ripe tomatoes
15 small carrots
2 turnips
1 medium-sized cabbage
2 red peppers
1 pound string beans

Scald the tomatoes by dipping them into boiling water for one and one-half minutes, and plunge in cold water immediately. Remove cores, stem ends, and skins. Cut in quarters and place in a large kettle. Blanch the other vegetables separately for five minutes, and cold-dip immediately. When I have sweet corn, I use four ears of it, cutting the kernels from the ear, after blanching them five minutes and cold-dipping. The vegetables are cut in small pieces, combined with the tomatoes and placed in jars. They are sterilized forty-five minutes, with the pressure from 10 to 15 pounds, if the pressure cooker is used, or one hour with five pounds' pressure. In boiling water or a home-made outfit and in condensed steam, process one and one-half hours; in a water-seal outfit, at 214 degrees Fahrenheit, process one hour.

I believe most housekeepers know how to can foods by the cold-pack method; but if they do not, no more definite and concise information can be obtained than that in Farmers' Bulletin 839, which may be obtained by writing to the U. S. Department of Agriculture, Washington, D. C., and asking for a copy.

MANY questions are asked every year by my friends, and the same queries come to me in letters, the repetition of which leads me to believe they are the doubting thoughts in many housekeepers' minds, or were at one time.

Perhaps the most frequently asked questions are: Why shouldn't I use the same rubbers more than one year? How can I tell whether they are good? Does color influence their quality?

I consider it too great a risk to use rubbers more than one year, although it might be done a few times without great loss. However, old rubbers usually have lost their elasticity. In fact, it is only the good new rubber which can withstand the long periods of boiling required in the canning of vegetables and meats by the cold-pack method. There is no difference in the efficiency of the different colors.

Fortunately, there are excellent tests one can give rubbers in the store before making a purchase. I have found the merchants who are eager to give good service willing to have these tests made.

When the rubber is folded back and pinched between the fingers, it should not split, although a tiny crack will do no harm. When twelve of them are stacked in a pile on top of one another, they should not be more than one inch thick. I also try to select rubbers which fit tightly on the cans, making a little stretching necessary.

My greatest worry when I began canning was over the loss of water from the cans during sterilization. Since then I have learned that the causes for this are many. The rack in the bottom of the boiler may not always have been high enough from the bottom or was uneven, so that some of the liquid spilled out; or the food may not have been thoroughly hot-dipped.

All vegetables contain considerable air in their tissues, and if this is not driven out by careful hot-dipping or blanching, the heat during the canning process forces it out. Some of the liquid about the vegetables takes the place of the air, and as a result the can appears to be only partly filled.

A partly filled can meant failure in our grandmothers' day; the open-kettle method was used then, and the food, sterilized by boiling, was poured into clean jars. The cans had to be entirely filled to exclude the air which was not sterile, but in the cold pack method everything in the can, including the air, is sterilized. For this reason one teaspoonful of food may be placed in a jar and sterilized by the cold-pack method. It will keep just as the food in a filled can does.

MY FIRST experiences with a pressure cooker for canning were satisfactory in every way, except for the annoying, but not important, loss of liquid. By learning the few essentials in the operation of these canners, the difficulty was removed. And here they are:

Prevent steam from leaking around the fittingsand joints during sterilization.

Keep the pressure constant; do not let it fluctuate from five to ten pounds and then down to eight. This may be regulated by lowering the flame in a kerosene or gas stove, and by moving the canner to a cooler part of the range. Some pressure cookers provide for the regulation of the pressure by adjusting the steam valve.

Do not fasten the lids on the cans too loosely.

Housekeepers who are not accustomed to using pressure canners may have other questions. I have adopted seven rules to be followed in FARM AND FIRESIDE's kitchen:

1. Let the water in the bottom come to the top of the platform, never above it.
2. When the cans are filled, place them in the canner at once, or in a pan of hot water.
3. Fasten the lid of the canner tightly, so it is steam-tight.
4. Give the live steam an opportunity to escape through the petcock; then close the opening.
5. Count the time of processing from the minute the desired pressure is reached. Keep the pressure uniform.
6. Let the canner cool until the steam gauge registers *zero*, then open the petcock slowly. When all the steam is out, remove the lid.
7. Take out the jars immediately, and tighten the lids.

OCCASIONALLY a glass jar breaks and brings discouragement. Much distress from this cause may be avoided with care. The first precaution is never to set the hot jars in a draft of air, or to place them in cold water. Cold jars, of course, cannot be set in warm water with safety.

In canning fall vegetables, you also must take into consideration that some of them, such as corn, pumpkin, and sweet potatoes, expand during the canning process. If the can is filled, allowing no room for expansion, the glass is likely to be broken. Having the lids screwed on tightly, and using too much water in the canner, is sometimes the cause of cracked jars. When tin cans are used—they give excellent results—this danger of breakage is not present.

Once in a great while women ask me if

[CONTINUED ON PAGE 35]

I Grow Better Spuds by Using Hill-Selected Seed

By W. L. Haisley

I FIND that I get far better results by selecting my seed potatoes from the hills as they are dug. I have never experimented with this on a big scale, for I am not a big potato grower, but it pays me on a small scale, and perhaps would pay even better on a bigger one.

In selecting the big nice tubers from the pile of potatoes in the spring of the year, you do not *know* that you will get a good yield of big nice potatoes even with a very favorable season. You may be getting diseased tubers from hills infected with scab, dry rot, and the like, even though the individual tubers may not show it to any marked degree. Whenever possible, I like to dig my seed potatoes by hand with an ordinary potato fork. This takes little extra work when only a few bushels of seed are needed, and by turning out each hill to itself I am sure of getting no bad potatoes mixed with the desirable ones as they are crated up.

When I come across a hill of nice, sizable tubers, free from scab and other diseases and with a generous yield, I know I am getting strong, vigorous stock that should produce well the following season. For such a hill could not have been infected with disease, and it is vastly superior for seed to that from a puny neighbor. A good-looking potato may come from a bad hill, but the disease germs will get in their deadly work after storage. By selecting your seed at digging time, you can store these better-producing tubers separately, and thus keep your seed stock in first-class condition.

GOOD tubers stored in a bin with decaying spuds will become weakened in vitality, and be less able to produce a good crop. I know from experience that it pays to select and store seed tubers separately, especially for late potatoes. I have helped plant fine-appearing spuds from a bin where the potatoes were from one third to one half decayed, and I have never known such to make a stand. The heat from the diseased tubers ofttimes destroys the eyes of those remaining. Such tubers may look all right, but they will not sprout and produce.

For best results it will pay you to select your seed potatoes in the fall, and to store them in small well-ventilated compartments; this rule holds good whether you expect to grow potatoes successfully on either a small or a large scale.

Canning Season

[CONTINUED FROM PAGE 34]

there is any danger in eating home-canned vegetables and meats. To these women I always reply there is no more danger of being poisoned by eating them than there is of an accident every time they ride in a motor car, cross a street, or drive a horse. Occasionally, not frequently, canned food spoils. When this occurs, its condition can be detected by the sour, disagreeable odor. Instead of running the risk by eating it, throw such food away, no matter whether it is home or commercially canned.

Here are three old-fashioned recipes for preserves from fall fruits. All have been tested in FARM AND FIRESIDE'S kitchen, and they taste so much like they did at Grandmother's, I'm passing them on to you.

GRAPE MARMALADE

Add two cups of water to five pounds of grapes, and simmer gently until the fruit is very tender. Then squeeze the juice through two layers of cheesecloth. For every quart of juice add two medium-sized oranges, chopped in fine pieces, three pounds of sugar, and one pound of chopped raisins. Simmer gently one hour, pour into glasses, and seal. This may be made in the winter if canned grape juice is on hand, although it is more delicious when it contains the pulp of the fruit.

QUINCE AND APPLE PRESERVES

Take equal parts of apples—sweet apples are best—and quinces. Pare, core, and quarter. Stew quinces until almost tender in a little water, just enough to cover. Add apples, and cook until very tender. Drain and strain juice. For every cup of juice add three cups of sugar; bring to a boil, add fruit, and let simmer until it is a deep, rich color.

YELLOW TOMATO PRESERVES

Cut the little pear-shaped tomatoes in halves, and cook in their own juice until tender. Then add an equal amount of sugar (equal weight of sugar and tomatoes), a few thin slices of lemon, and cook slowly two hours.

IF CANNING continues to increase in popularity during the coming years as it has recently, I feel certain that many housekeepers will follow the practice of canning whole meals—that is, the main dish—in one can; for instance, beef with noodles, chicken with rice and vegetables, mutton stews, and the like. FARM AND FIRESIDE'S kitchen is now the scene of many experiments in canning such combinations in hopes of giving you the results of our investigations and good recipes when you want them in the future.

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THE Quartermaster-General of the Army is furnishing free of charge a headstone for all unmarked graves of soldiers, sailors, or marines, whether they died in service or after their discharge. This headstone is made of American white marble. It is 40 inches long, 2¼ inches thick, 10½ inches wide at the bottom, tapering from bottom to top, which is 10 inches wide. Each stone is to have a circle 2¼ inches in diameter on the front face, near the top, on which an emblem of religious faith will be cut. These emblems will be either a Maltese cross or the star of David (six-pointed star). The star of David is intended for soldiers of the Hebrew faith. Unless the applicant requests the star of David, it will be assumed that a Maltese cross is desired, and the headstone will be so inscribed. For further information write to me or to the Quartermaster-General, U. S. Army, Washington, D. C.

There are still more than 4,000 undelivered Liberty bonds being held by the Finance Department in Washington, that belong to ex-service men. These Liberty bonds have been mailed to the addresses given by the soldiers, but have been returned undelivered. If you know of any ex-service man who has not received his Liberty bond, or who has any unadjusted claim, have him write me, giving full particulars; his claim will be given immediate attention.

Enclose a stamped self-addressed envelope for reply, and address Richard T. Bell, American Legion Representative, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

Your Weather-Beaten Face

[CONTINUED FROM PAGE 11]

on the face, and don't be in too much of a hurry when using it. An astringent that you can easily prepare yourself is made of a teaspoonful of lemon juice to three teaspoonfuls of witch hazel. Do not mix with water, and be sure to prepare fresh every night. This preparation will tone up the skin and refine it.

If your face is tanned, don't wait too long before trying to whiten it. I know of a buttermilk soap that will help to bring back your skin to its natural pink and white color, and there is another soap I have in mind that is most useful for refining and smoothing the skin. It contains a little juice of the elder flower. You know, in the old days most of the prized beauty recipes that our grandmothers used always contained a little of the juice of the elder flower. This soap also acts as a mild astringent.

Miss Gould will be glad to send her leaflets on Blackheads and Essentials to a Good Complexion if you will write, enclosing a stamped self-addressed envelope. Send letter to Grace Margaret Gould, FARM AND FIRESIDE, *381 Fourth Avenue, New York City.*

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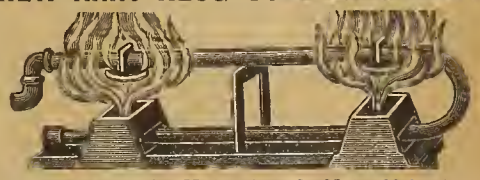

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Our Letters to Each Other

What one farm mother has learned about how to keep her daughter on the farm

"F. E. M.," an Idaho farmer's wife, has written me the following very sensible letter about the attitude of farm mothers toward farm daughters:

"Much has been said and written about keeping our boys on the farm, but how about our girls? Is it not just as important that our girls should be kept on the farm? How long would it take for our farm communities to become 'howling wildernesses' if there were no women there?

"Our farm boy must eventually have a wife, and who is better prepared for that position than the girl who has had farm training? Not that city-bred girls do not often make good farmers' wives. Many of them do, but only after many failures, heartaches, and discouragements, and the farmer husband has missed the help and encouragement he needed at the beginning of his career.

"Having myself lived in a city until I was married, I know whereof I speak, and if my boy is to become a farmer, (and I hope he will) I trust he will choose a farm-trained girl.

"In these days when there are so many openings for girls, it grows increasingly hard to keep them in the country. Our boys' and girls' clubs are doing wonders, but they do not appeal so much to the girl in her teens. She finishes the grades in the rural school, and then, let us say, she goes to the nearest town or city to high school. Here her interests are entirely different; and the mother who is able to keep her girl at home after high school is a very wise and understanding mother, indeed.

"If the girl goes from a home where money is none too plentiful, she finds it a problem to keep up with the girls of her set, for almost invariably girls in town have more spending money than do country girls. During vacation the town girl has innumerable ways of making money that the country girl does not have; and the country girl is proud and sensitive, always. If she spends her Saturdays and Sundays at home, she brings home the tale of her needs; and if Mother has not, and cannot, get the extra money Daughter needs, she must be a very, very wise and understanding mother, or Daughter will return to school Monday morning thinking she has been treated badly, and straightway she will begin planning what she will do to earn money 'just as soon as she has finished school.' If she ever develops that attitude it is 'good-by' to making a farm girl of her. But if Mother understands her girlish heart, and takes a vital interest in all her longings and desires, she can do wonders in smoothing out the tangles.

"At the end of her four years' course in high school, the girl returns home, and must have amusements to take the place of those she has had in high school; it is right and proper that she should have. And Mother must assume the responsibility.

"Here let me offer a suggestion: If your community does not have a young people's social club, organize one. It is astonishing how much entertainment and amusement a club can find—how many good times it can make for its members. Make your home a place of welcome for all your daughter's friends. She will be far better satisfied to have plenty of young company at home than to have to go elsewhere for her amusement. One mother said to me not long ago:

"'We never have a Sunday to ourselves any more; there are always some young people besides our own there—sometimes the house is simply running over with them. There are times when I would like to slip away from them all and be by myself, but Edith always wants me to visit with her girl friends and share in their amusements;' and she laughingly added, 'I have listened to "he saids" and "she saids" until I nearly go crazy, but,' and she said this with pardonable pride, 'Edith always talks to me as she would to a girl of her own age.'

"Wise mother! Do any of you mothers think the sacrifice she is making is too great? I do not. Does your daughter talk to you as she would to 'a girl of her own age'? If not, why doesn't she? Is it a lack of sympathy on your part? Too often that is the case. Of course, the chatter of a girl in her teens often sounds rather silly to us older folks, but can't we put on our backward-looking spectacles and see ourselves as we were at that age? We were all alike, mothers; but too many of us forget the time that we were at the 'he said' and 'she said' age.

Picture by J. C. Allen

This is Grace Tresche of Fleming, Ohio, and the calf she was so determined to show in the Ohio State Fair Calf Club last fall that she walked and led him twelve miles to the nearest railroad shipping point. Lots of grit for a twelve-year-old girl! The sort that wins success for anyone

"Another problem that must be taken into consideration is spending money. A girl cannot keep her self-respect and never have a cent of money that is really her own; and it is not really her own when she must go to Father or Mother and ask for each small amount as she needs it. She should be given some way of earning money that will make her feel independent.

"The best way I know of to do this is to start her with stock of some kind when she is small. Then she doesn't feel the need of spending money of her own, and by the time she has reached the 'teen' age her stock, be it sheep, cattle, hogs, or whatever it is, will have made her a respectable bank account. Nearly always there is some animal on the farm that the girl *calls* hers. But all too often, while the pig is hers all right, by some strange metamorphosis which she in nowise understands, the hog has become Dad's. That isn't fair. It is stupid, for children are quick to sense an injustice.

"I know a man who started his two little girls with a dollar each; or, rather, the money was given them by a relative, and for the two dollars he sold them a pig. This they owned in partnership until it was fully grown, fattened, and marketed. The expense of raising it was assumed by the father. The little girls were then about three and five years of age, respectively. When the hog was sold the money was used to buy a heifer, from which, for a number of years the father kept selling the male calves and keeping the heifers.

"Just at that time the father was in need of ready money, and, instead of going to the bank for it, he borrowed it from his two daughters, paying them the same rate of interest he would have had to pay at the bank. Later the money was invested in real estate, and made a nice little profit. When these girls were young ladies they did not have to ask Father or Mother for every penny they wanted. They were independent, and no hardship had been imposed on anyone in accomplishing that end.

"If you want your girl to stay at home, be fair with her. Do not expect her to stay merely as a duty, in payment for what she owes you. Frankly, I do not think our children owe us nearly so much as we like to pretend they do. We, and we alone, are responsible for their coming into the world, and the responsibility of giving them a fair show rests with us. In giving them a start in life, until they are able to do for themselves, we are giving them only what is their due. *An Idaho Farmer's Wife.*"

That is a hot shot in the last paragraph. But it is true, and I admire this mother's courage and honesty in making it.

On September 12, 1920, Floyd Berry, aged fifteen, disappeared from his home on a farm near Canton, Illinois. Mrs. Berry asks any FARM AND FIRESIDE readers who have seen a boy who answers to the following description to communicate with her.

At the time of his disappearance he was 5 feet 8 inches in height and weighed 140 pounds. His complexion was fair, hair light, and his eyes bluish-gray. There were two small scars on the back of his head. He may have changed his name.

Anyone who has seen or heard of such a stranger will confer a favor by writing to Mrs. Lester Berry, R. F. D. No. 3, Canton, Illinois. A reward also is offered for Floyd Berry's return.

George Martin

But It Keeps Moving All the Time

By Bruce Barton

AS HIS train was hurrying along through Indiana, a friend of mine fell into conversation with the conductor of the Twentieth Century Limited one afternoon.

"This train doesn't seem to run so much faster than the trains from New York to Chicago that take four or five hours longer," my friend remarked.

"You're right," the conductor responded. "It doesn't run very much faster. In fact, most of the way it doesn't run any faster at all. But don't forget this important fact—*it keeps moving all the time.*"

My friend repeated the conversation to me, and it called up the memory of a celebrated personage whom I once saw as a passenger on that same train.

It was a cool, fine morning; I slept rather late; so did the other two men with whom I was traveling.

As we made our way leisurely back to the dining-car we passed the open doorway of a drawing-room. Inside, with a mass of papers spread out on the table before him, sat the famous gentleman.

He has been governor of a great State.

He has enjoyed from his professional work an income of more than $100,000 a year.

He has been a member of the Supreme Court of the United States, a candidate for President, and is now Secretary of State.

Some say that Nature gave him talents far beyond the reach of ordinary men. Some say, enviously, that he has been blest with more than his share of good luck.

But Charles Evans Hughes, if you were to ask him, would probably attribute his success in large part to the fact that he has worked all his life just a little harder and a little longer than other men are willing to work.

That day on the train, while we were sleeping away a couple of good morning hours, he was out of bed and had eaten his breakfast and was vigorously digging in. The brief case full of papers was as essential a part of his traveling equipment as the suit case that contained his tooth brush and clean collars.

His competitors have gone forward by fits and starts; *he has kept moving all the time.*

I believe that this thing of keeping everlastingly at it is the one true and dependable formula for large success. Without it no man attains distinction; with it all sorts of men, differing widely in their characters and opportunities, finally win through.

Napoleon started very early; before he was thirty he had made himself the greatest single power in Europe. But how he did work! Often he kept his council in session all night. His associates wanted to quit and go home, but he would not hear of it. "Come, sirs," he would cry, "we have not yet earned our stipends!"

Sir Walter Scott, on the other hand, was forty-three when success came to him. Cervantes plodded along unknown until he was fifty-eight. Savonarola was seemingly a failure at forty. But the work of those obscure years was not lost; in each case it made possible the brilliant achievements of later life.

Napoleon was a quick-starter; they were slow-starters. But all of them finished the journey and came into the depot of fame and success.

Was it genius that carried them through? Genius alone never would have done it. The genius travels sixty miles an hour for a while, and then stops on the siding to rest.

And while he stops, another man puffs sturdily by and leaves him far behind. The talent of the other man may be less brilliant, his start in life may have been badly delayed. But once he gets started he never stops.

Like the Twentieth Century, he hits his pace and *keeps on moving all the time.*

FARM & FIRESIDE

The National Farm Magazine

November 1921

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LOREN HOLMWOOD

In this Issue **Money Thrown Away** See Page 1

"So *you* sent the letters to my husband, and—"

The fire throws a weird light over the man's cruel features. The woman trembles in her anger; she has come to his house like a thief in the night; the next few moments must decide his fate, or hers. Tense and breathless you hurry on with the story. You are thrilled by the magic of the great master of mystery,

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Vol. 45. No. 11

FARM & FIRESIDE

The National Farm Magazine

November 1921

How Waste in Industry Robs Your Purse

By Edward Eyre Hunt and George Martin

Mr. Hunt has been associated with Herbert Hoover in many phases of his work

ANY successful farmer will tell you that the high road to prosperity lies in not letting anything on his farm go to waste—neither time, labor, materials, nor opportunity. The best farmer anywhere is the one who makes the most intelligent use of what he's got.

What is true of the individual is true of the farming industry. Waste in marketing farm products has given the farmer a small return for his products, while the consumer was forced to pay an unusually high price. Wasteful practices in agricultural marketing and in industrial manufacturing are responsible for this.

The farmers of America, realizing that farming must be put on a business basis, have organized the American Farm Bureau Federation. The chief function of this organization is to wipe out the waste in farm marketing, thus giving the producer a fair price for what he grows, and the consumer a fair price on what he buys.

Whatever you may think of the commercial world and its ways, the fact remains that it has had much more experience in industrial organization than the farming world has had; and intelligent farmers, who have for the first time seriously and successfully begun to organize their business, can well afford to take some leaves from the notebooks of organized business.

The A. F. B. F. already has done this in the formation of its own national organization, which is fashioned on the general lines of that gigantic and successful billion-dollar industrial enterprise, the U. S. Steel Corporation.

ALL this is preliminary to the suggestion that there is another leaf the A. F. B. F. can take from the book of business. That is to make a survey of all branches of farming, as industrial leaders have just made in industry, to determine how much waste there is in the national business of agriculture, who is responsible for it, and what can be done to wipe it out.

Despite its centuries of experience in presumably efficient organizations and methods, a perfectly staggering amount of waste has been uncovered in the industrial world. The figures will be given later in this article. What, then, must be the conditions in agriculture, which never has been organized until the last few years?

The problem of waste is a multiproblem between the farmer and the manufacturer. The line of products take from producer through to consumer is straight, and strewn with waste of all kinds. The more it costs the farmer to get his products to the door of the manufacturer, and the more it costs the manufacturer to get the goods processed and back on the counter of the local store for the farmer and others to buy them, the more it will eat into the profits of the farmer and others, by increasing the cost of living. Hence the following story of what industry has done is of direct personal interest to you as a farmer and as a consumer.

A couple of months before Herbert Hoover entered President Harding's cabinet, he appointed a committee of seventeen engineers to make a study of waste in industry for the Federated American Engineering Societies. Hoover had just been elected president of the Federated Societies. In his presidential address he called attention to the wastes in production, and pointed out the heavy burdens which these wastes lay on the shoulders of everyone, producers and consumers alike.

The Hoover committee has just made its report, after a close and rapid investigation of several industries which are considered typical of American industry as a whole, and are vitally important in the life of every American, whether city dweller or farmer. The study sampled the metal trades, the building trades, the textile industries, boot and shoe manufacturing, ready-made clothing, and printing. Studies of bituminous coal mining and railroading were not completed within the time limit, and are not included in the report.

THE Hoover committee was interested in waste, only if it represented somebody's failure to use men, materials, and machinery to advantage. In other words, it thinks of waste as wasted effort, and it proves that this is by far the most costly waste of all. If industry does not make effective use of its resources, you and I have to pay the bills, invisible but enormously high, and these bills are presented to us every time we buy the products of industry.

Every farmer is dependent on the metal trades for his tools and machinery, yet the committee finds that the average metal-working plant is from 25 to 30 per cent behind the best plants in output per employee.

Farmers have an interest in the proper functioning of the building trades, yet the wastes in building are not less than 40 per cent.

Farmers have to buy boots and shoes and clothing, so they are interested in the proper functioning of the textile, shoe, and ready-made clothing industries. Clothing is more than 40 per cent wasteful; textiles are about the same; shoes are about 35 per cent wasteful.

All of these estimates refer to *normal* conditions, not to the present abnormal post-war state of affairs.

The engineers who made the studies individually state that if preventable wastes were eliminated the price of shoes might be cut at least 25 per cent below normal prices, and two suits of clothing might be produced with the effort which it now takes to make one.

BUILDINGS cost about two and one-half times as much as they did before the war, but when we get back to "normalcy" the owner of a new house or a new barn will still be paying on the average one-third more than he ought, unless the building industry cuts out waste.

Curious facts come to light in regard to building materials. The size of bricks is not yet standardized. Standardization of the thickness of certain walls would mean a saving of some $600 in the cost of the average house. Standardized millwork, such as window frames, doors, and other similar items, would also greatly reduce costs.

The biggest wastes come, however, from non-use or inefficient use of men and plants and materials. In clothing factories during running time, not including shut-downs at all, the loss of time runs from 30 to 35 per cent. Fixing the value of annual output in the men's ready-made clothing industry [CONTINUED ON PAGE 14]

He Eats Right Out of Your Pocketbook

Cartoon by Gaar Williams

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Some People Say Hanks is Lucky, But His Chance Was Theirs Once

By Gilbert Gusler

Who was formerly connected with the Department of Animal Industry, Illinois College of Agriculture

ONE day, not so long ago, from the window of an Illinois Central train, I saw a great herd of cattle near the tracks at Onarga, Illinois. It was most unusual—for Onarga, while near the Chicago markets, never did have the reputation of being a cattle district.

Indeed, it was so unheard of I later made it a point to drop off the train at Onarga, and in the events that followed met an interesting man and gathered an unusual story of accomplishment.

The man was Gilbert Hanks—and his story is that of a man who made a fortune by grasping an opportunity others missed.

Hanks is a large-scale cattle finisher who specializes in the conversion of cheap roughage into marketable beef in a large way and in a unique field.

The canning factory at Onarga, Illinois, leased, and has for years, about four square miles of rich, black land nearby which, barring an occasional patch of oats, is always planted to sweet corn. A commendable feature of their lease is that none of the manure from the crops produced is allowed to leave the land. To make good, the company, year after year, hauled back the refuse consisting of husks, cobs, and rejected ears, and spread it over the fields from which the corn was taken.

Although the town of Onarga, named for an Indian maiden of the Iroquois tribe, which once roamed the prairies and forests of that section, is located within a short distance of Chicago, the world's greatest beef market, the farmers of the community produce but little beef. Perhaps no one thereabouts thought of the feeding value of the refuse from the canning factory, or knew the ways to use it. But Mr. Hanks, at Fremont, Nebraska City, and Grand Island, Nebraska, had been engaged in beef-making with the by-product of similar factories. When he learned that 4,000 tons of material was available at Onarga, he knew its possibilities, and upon it has founded a profitable beef-producing enterprise.

HANKS got busy, and had a seven-year lease drawn up under the provisions of which he pays a certain annual sum for this refuse for use in cattle-feeding, and furnishes the labor to do the stacking. The company has installed a conveyor and distributor to carry the material to the stack, and also hauls the cattle manure from the feed lots to the fields which it has leased.

In late summer, when the canning season begins, Mr. Hanks hires a squad of men to stack the silage. The giant distributor can be swung about in a half-circle, but it must be moved by hand. Moreover, the silage must be thoroughly tramped. Reversing the tactics to be followed in building a haystack, the object here is to keep the outside high and very thoroughly packed, as this retains the juices and excludes the air. The semi-circular stack is all built up at one operation. When completed, the outside rots to a depth of 8 to 12 inches, forming an air-proof layer which effectively preserves the underlying contents.

A short distance away is the feeding plant. The founder of the famous Pinkerton Detective Agency once lived at Onarga, where he won his early spurs by breaking up a band of counterfeiters that operated in a nearby woods. He built an estate here at the edge of town, with a private race track and other trimmings for the breeding of race horses. Along one of the groves of evergreens that featured the place in its one-time grandeur Mr. Hanks raised a long open shed, facing south, to shelter his cattle. This shed, at one end, was adjacent to the tracks of the Illinois Central railroad, and it was the sight of his hundreds of cattle seen from a car window that first aroused my curiosity. During the past summer, this shed was replaced by a house of double monitor type, 485 feet long, with concrete feeding floors 16 feet wide on each side. A center driveway makes it possible to shovel or fork the feed direct from the wagons into the bunks which run the length of the building on each side of the driveway. The space on each side of the house is divided by cross partitions into four sections, so that cattle in different stages of the finishing process can be kept together. Connected with each of these eight sections is an outside lot. The cattle pass in and out through wide doors that are never closed. Allowing a shade less than two feet of bunk space for each steer, the capacity of each section is about 60 cattle. Naturally its construction is not for looks, but on a standpoint of economy, since the contract with the canning company is not permanent.

Picture taken by Clarence A. Purchase

They are John and James Maloney, even if they don't look Irish, and they live with their father, Edward Maloney, who has charge of the fancy horses on the farm of James E. Davis, near Brookville, Long Island, who specializes in breeding saddle horses and hunters. Right at the time Mr. Purchase got in front of the young Maloneys, they were pretty much interested in their load of apples, and their grins indicated pleasant visions of future apple pies

Hanks generally keeps more cattle on feed than can well be sheltered within the house. They run in large, open lots adjacent to those which are connected with the building. Feed bunks, to which these cattle have access from one side, are bordered on the other by a driveway for convenience in feeding.

IN LATE September or early October, soon after the canning season closes, the cattle begin to arrive, as the silage is ready in a short time. The decayed material is removed from a section of the stack, and this section is used straight down to the ground in order to keep the exposed area reduced.

A full feed of the daily ration he now uses consists of sixty pounds of silage, three pounds of cottonseed meal, and four pounds of corn meal per head. In the last part of the feeding period the corn meal is increased to five pounds. Hanks uses cottonseed meal of the grade richest in protein he can find, which usually means a 55 per cent meal. He feeds corn meal, though more expensive, in preference to shelled or ear corn, because a quicker finish can be obtained. With the ground feed the material to be salvaged by hogs is comparatively small. Only 38 head were on hand, following some 550 steers, at the time of my visit.

As the cattle are full-fed for about sixty days, around three tons of silage suffice to carry a steer through the feeding period. The 4,000 tons available are ample for the 1,246 head which it is his intention to finish this year. About half of these had gone to market by the first of February.

UNTIL this last year he fed no corn. The cattle were given all the silage they would handle, and a little less than two pounds of cottonseed meal. Under that plan the cattle were fed over a longer period. Undoubtedly the addition of the corn meal has increased the fattening power of the ration, and made it possible to turn the cattle more quickly. No dry roughage is fed, although the evidence from experiment stations would indicate its desirability in such a ration. At current prices of cottonseed meal the amount used is probably larger than the results will justify. However the ration is a fair example of a heavy silage and light grain combination which many feeders have tried with success in the last two or three years.

Great care is used in getting the cattle on full feed. Even an excess of silage at the beginning would cause a setback. A start is made with about 30 pounds of silage per head daily, with no concentrate. The amount is gradually increased. On the fifth day one pound of cottonseed meal is added, and is increased by half-pound quantities daily until the full amount is given on the ninth day. Then the corn meal is started—one pound daily at first, increased gradually until by the fourteenth day a full feed is [CONTINUED ON PAGE 12

Anybody'd Git Mad!

"Reckon I hab some fun wif Uncle Toby—"

"An' paint up his old gate."

"Heah he cum now, rip-snortin'!"

"Dat rapscallion suttinly do make me hoppin' mad!"

The Coffee Hound

How a young fellow who stood to lose his girl and every cent he owned, put it over on a sorehead, and won more than just a horse race

By Jonathan Brooks

Illustration by Gaar Williams

WHEN Tom Hull died he left nothing but a seven-year-old note for five hundred dollars, lent in a misguided campaign moment to Skinner Fogarty, the old one-horse guy out at Scatterfield. Jimmy Hull, Tom's boy, needed the money. But Skinner had starved for seven years after obtaining the loan, and his only possession, when Jimmy Hull asked him about the note, was a sorrel running mare. Jimmy agreed to accept the mare in payment, thereby doing a favor for old Skinner, who, after long lament, got a good seventy-five-dollar job looking after a farm nine miles south of town, and forsook the races forever.

"But, Jimmy," asked Mary Martha Amsden, "whatever will you do with a race horse—sell him?"

"He's a her," Jimmy replied gloomily. "But I'm afraid the prospect of selling her isn't very good right now. I've inquired around some, and nobody wants to pay more than one hundred and fifty dollars for a horse that can't do anything but run, and is liable to do that when hitched up to a phaëton."

"I'd sell him, or her, anyhow," declared Mary Martha promptly. "This horse will be a regular elephant on your hands, Jimmy."

"But nobody's gonna get anywhere cashing in a five hundred dollar asset for one hundred and fifty dollars," said Jimmy.

"Better cash in that much than none at all. What else could you do?"

"Well, I'd thought some of racing her this summer," Jimmy answered slowly.

"Oh, Jimmy, not that!" exclaimed Mary Martha. "Surely you wouldn't do that! Why, horse-racing is—is low, Jimmy!"

"Not if it's on the square, girl. And you know I'd play straight."

"Of course you would, Jimmy," she agreed, letting him take her hand and squeeze it. "You're the squarest man I know. But I think it would be terrible for you to go into racing. What could I tell Mother?"

"It isn't any of her business," declared Jimmy stoutly. "Needn't tell her anything."

"But she'd know about it. And so would Dad. Listen, Jimmy, please don't go in for racing. Give this old horse away, and you can get a job, and I'll wait for you, honest I will."

"I DONT want you to wait, or have to wait," said Jimmy presently. "And I don't want to wait, either. Listen, Mary and Martha," he continued, wheedling. "All I want to do is to get a stake to start in business with. You don't want me to be a job holder! If I can get a stake by winning some races with this mare this summer, why, in the fall, I'll quit and sell her, and go into business. There's nothing wrong with that program, is there?"

"Maybe not, but how about the horse? Can he win races?"

"Skinner says she's the best mare he ever owned. He says if she can't win races Old Rosebud is a turtle."

"Whatever that means," commented the girl. "But, Jimmy, it will be awful hard on me this summer. You'll be away, and Mother will be down on you, I just know it."

"Well, let's not worry about it yet," said Jimmy soothingly. "Maybe I'll find some way out without racing."

But he did not. There seemed nothing else to do, and Jimmy embarked in the racing game. Mrs. Amsden quarantined her house as far as he was concerned. She refused to let him call on Mary Martha, and to permit Mary Martha to correspond with him. The ban nearly broke Jimmy's heart and his determination to win a business stake on the track, at one blow. His heart came out whole, and enough of his determination was left to carry him through a most discouraging summer.

Jimmy took his mare away for the races on the tracks of the big Indiana county fairs. The first thing Jimmy learned about the racing game was that he had everything to learn. The second thing was the fact that every lesson cost money; and the third, that experience was about all he got when he paid the price. The running races at the Indiana fairs have always been a more or less wildcat institution. The fair associations maintain rather well-defined rules and regulations for the trotters and pacers, but make little attempt to govern the incorrigible runners. All sorts of piracy, sandbagging, and highway robbery parade in public in the guise of running races. This story has to do with the black art of sandbagging, of which Jimmy was the victim, along with the public, nearly every time he started. Sandbagging is the process of losing the first heat of a race in order to improve betting odds. With the first heat lost your chance to win the race looks slim, and odds on your horse climb. Then you step in and win. It is a nice and, when cleverly executed, profitable game. Poker Bill Ludlow, of Covington, Kentucky, knew how to execute it.

Jimmy won a first heat at Marion, and another at Elwood. He won a first heat at Portland, and another at the Darke County, Ohio, fair, but at none of these places was he able to land the race itself. It looked like racing luck the first time, and more like racing luck the second time. But the third time it looked queer; and the fourth time, downright suspicious. At Muncie the judges took hold of things.

"Hull, you win the first heat at Marion; but Ludlow, you take the race with your Sox hoss. Hull, you win the first heat the next week at Portland, but Ludlow takes the race. The same thing happens the next week at Greenville. Now, ahummm, blooahhh—"

Old Wes Jolly, judge of the racing at Muncie, was mad clear through, and, after blowing an indignant nose and clearing his throat so sonorously that the crowd in the grandstand across the track heard him, proceeded to lay down the law in such cases made and provided.

"What I want to know is, what in the samhill are you up to? What kind of an affair is this? After you, Alphonse? Or is it just plain hippodrome, and to Hades with the folks that look for honest racing? What have you got to say for yourselves?"

He looked at the pair, and they looked at each other, Jimmy Hull in deep embarrassment, and Poker Bill Ludlow in leering unconcern. Before they could say anything for themselves, Old Wes poured an ultimatum on their heads.

"Wait, wait a minute! I don't care what you got to say for yourselves. You get down there on the track, and *race* for yourselves. And if I see anything that looks like either of you is not tryin', by the gods, I'll fix you both so's neither of you'll race in this State again. Now go down there and get busy."

JIMMY flushed deeply. His face burned and his hands itched for an opportunity to prove he was on the square. This thing of being held up before the crowd as a crook hurt. He wanted to tell the judge his mare was always trying, that she had never run anything but an honest race, and that he would have nothing to do with any kind of a frame-up. But old Wes Jolly waved him out of the stand. He wondered, as he went down the steps with his head lowered to avoid the gaze of the hangers-on, why Ludlow's horse should be so erratic.

"When he's good, he's very, very good; but when he's bad, he's awful," Jimmy mused to himself. "Certainly

[CONTINUED ON PAGE 22]

"'Git outa' heah, Nigguh,' he yells at me. 'Beat it. Ain' nothin' in none o' them drug stoahs kill yo' quickuh'n whut Ah will'"

If You Hit the Hunting Trail This Month, Read This

By Warren H. Miller

WE WERE in camp on our annual deer hunt. All through the Northern farm States, within ear distance of the big woods, from Minnesota to Maine, that deer hunt is almost an annual institution. November comes, the crops are in, the leaves are down, and a purple haze fills the bare forests of our own uplands. Then is the time "the boys" get away for a week's shooting up in the spruce and balsam. Virginia deer, "pa'tridge," an occasional black bear, ducks galore, and "big bun," as the snowshoe hare is called, and "dar are" foxes to shoot, ahead of a good, colt-trailing hound.

Our own particular trip happened to be staged in the old Green Mountain State of Vermont, but it is reproduced with variations wherever there is a bunch of congenial farm lads—and "boys" not so young—who make up their minds to find the time for it after the harvest is over and the game laws have gone off. Some crowds that I know even make the annual deer hunt such an institution that they have a log shack of their own up in the tall uncut, to which they return year after year. No flies, no skeeters, no punkies; it does not need much change from the spring fishing outfit to do it—simply warmer clothes, more blankets or fur bags, good down to zero, and a tent stove. For dogs on this trip we had "Ab's" coonhound, Old Dime, as war-worn and horny as his master; "Jem's" setter bird dog for ruffed grouse; and two harrier-sized beagles broke on snowshoe hare for "Rabbit Jonesey."

A grand, breezy morning, with the keen northwest wind biting and the cloud shadows chasing across the familiar home hillsides, greeted us as our car pulled out for the trip north from M——. "Hart" Pierson and his son "Buck" were always the ringleaders and rallying point of our trips, for they owned a light tent that would sleep six, a cook kit, and a tent stove. "Old Ab," with his little car loaded to the guards with plunder, and Dime baying madly in the back tonneau, was waiting for us at the turn-in to his farm. Thirty miles north we picked up Jonesey and his car. By late afternoon the three cars were parked under a wagon shed at the end of the long drive, and we toted our duffle down to a float on Lake Antrim, where we hired two boats for the first lap of our 10-mile hike into the wilderness. It was rough and stormy out on the waters, with the strong November gale lashing the lake and strewing the white-caps broadcast, and the mountains frowning bleak and snowy about us; but there was freeboard to spare, and what cared we, warmly clad in mocs, socks and stag shirts, with fleece-lined canvas jackets keeping out the wind! Three miles down the lake, and near a gaunt pine, we hit the end of the Hawk Pond trail. Boats turned over and oars hid, each man strapped on his pack, and the distribution of general duffle began. It is well to limit one's personal stuff to forty pounds on such a trip, for the extras for a party of six will add a package of some 25 pounds to ride on each man's pack. Of us six, two started up the trail with side-opening grub bags slung around their necks like sausages; one drew a knobby sack of spuds; one made off with the stove, an uneasy burden on his shoulder; and the other two got away with the tent, packed in a reflector baker, and the eating tarp, two axes, and a can of real Vermont maple syrup.

FOUR miles of stumbles, slips, slides, and picturesque profanity brought the procession to the old dam at the head of Hawk Pond. The moon was riding high and it was bitter cold when the weary and sweating party started building a rousing camp fire, setting up the tent stove and clearing away brush for the main tent. Axes rang in the timber, voices sang and joked, pots sizzled on the stove, and flames roared up from the big fire, as all hands proceeded to make camp and "suffer comfort." A long spruce pole was lugged into camp and shoved down the ridge of the tent, a pair of shears went under one end, and, with a shout, up it rose, while the busy thump of tent pegs accompanied the flattening out of her sides. In a trice we had a rag house, a forest home, and the stove was shoved under her front canopy, with its red-hot stove pipe rejointed to go up through the pipe hole by the aid of stout woolen cooking gloves. Presently the tent became insufferably warm, fleece coats were cast off, everybody relaxed. Buck and Rabbit came in, dragging huge green caterpillars of balsam browse strung on a withe, and beds were laid. Sleeping bags were rolled out and two carbide lamps lit. Presently Hart raised the time-hallowed chow call: "Come and get it!"

"Rabbit Jonesey," with Drake dog, volunteered to get the makings of a stew

One evening, when we got back to camp, we found "Old Ab" with a glossy big black bear

If you're ever lucky enough to bag a moose like this, you're eligible for the big-game class

Now and then one of us would help "Jonesey" bring in snowshoe rabbits

Pipes, more browse-picking, and by ten o'clock the interior of that tent was as much home as anywhere in the world. Six happily tired hunters turned in, all the world slept, and the silver moon rode out the hours, finally hiding her face behind clouds before morning, and a light haze of snow fell.

Before daylight Hart unlimbered an arm out of his sleeping bag and fed the ice-cold stove some birch curls, a few sticks, and a billet or so of wood. The snapping of flames inside woke up the party. One by one they rolled out, pulling on socks and moccasins sleepily, oiled up the rifles, and dropped a handful of slim brass cartridges into coat pockets. Of all six, I do not recall any two men with the same model rifle, so varied are the tastes of outdoors men as to what constitutes an ideal deer rifle. The light and slender .250-2000 Savage was Buck's newly bought pride; the good Winchester "thutty-thutty" suited Hart; bearded old Ab, who was a good deal of an old-timer, still carried his .38 Model '86. Fat swore by his Remington .35 automatic while the writer carried an old girl that has got the meat all the way from the Rockies to New Brunswick, a .35 Winchester box magazine, Model '95. Too heavy, perhaps, for deer, but the white-tail can carry off more lead than any living creature. I've known one to run a hundred yards, shot through the heart, before dropping. One good punch from that cheerful young cannon of mine knocks 'em down to stay, be it elk or deer, and as it only weighs 8½ pounds I saw no reason for taking on a new rifle that I did not know.

WHILE browsing around on the subject of rifles, let me point out that the sights are a good deal more important than the rifle. Any of the above are good deer rifles, but the sights that come on them are by no means the best for woods shooting. In general, we are working back to the sights with a centering line or ivory triangle let in it, and a plain metal front sight, with its rear corner filed to a 45-degree angle, so that it will reflect daylight back into the eye in the dim times of early dawn and twilight. This sight shows bright and square, earlier and later than any of the bead sights; it is not easily broken off, and you can cut off just as much or little of it as you judge right for the range with the bar of your rear sight. It gives fine definition in the woods, and you can see your deer moving over the rear bar instead of hidden by the notch of deeper sights.

By the time the pot of ordinary coffee and Ab's blackjack were boiling, everyone was dressed, and a mess of roasted pilot bread drawn out of the reflector baker.

"Now, then, men, up an' at 'em!" barked Hart, downing the last of his portion. "We'll hunt in pairs—Buck and I the south backwater; Fat and Cap the meadows of East Branch; Rabbit, I suppose it's buns for yours?"

"You said a whole book, that time!" came back Rabbit. "You can have your mountain mutton; me for a day with Drake and the scatter gun."

"Seems to me I lost a ba'ar hereabouts," squeaked old Ab from behind a pipe blacker than the jack pot. "I'll be takin' ole Dime, here, an' we'll go git him."

"Well, the quicker we get a deer hung up, the quicker we'll eat," declared Hart. "I guess two parties'll do for a starter."

We were off down the trails at the earliest streaks of gray. The light snowfall showed that the deer were already up and about. Anyone taking a stand and keeping quiet at either the south backwater or the East Branch meadows, where the ruins of ancient lumber camps still rot in the seared weeds, would be reasonably sure to get a deer. You hear much about the fine points of still-hunting deer; but, take it from me, more deer are shot in the early morning or late in the evening, when they come down to drink, than in any other way. It is a case of "git thar fustest" with the quietest feet. We "got thar fustest," and Fat blew a handful of lead through a fine eight-pointer, so that my old meat gun didn't have to talk at all. We hung him up with a tripod of poles—a good trick for one man, for you can raise the whole deer alone by shoving in the foot of one pole at a time. To paunch a deer, the cleanest way is to reach in and tie a string about the great intestine before severing between string and rectum. The rest of him then comes out clean. Save liver and heart and keep the carcass pried open with a stick.

After a time, hearing no shots we fired the rifle three times, which signal brought Hart and Buck over through the woods an hour later. We poled the deer and toted him to the head of the lake where the boat could get him. Fat wanted to mount the head, so we set about skinning out his deer as soon as it was finally hung up, head down, on the camp pole. Most beginners make the classic mistake of cutting the neck too short. Ours we started with an incision on the back of the neck just over the shoulder, carrying it up to just behind the horns, where it branched to the base of each of them. A second cut ran from the incision point over the shoulders down in front across the breast. This gave us a fine head scalp that would mount well. Skinning out carefully around the eyelids and nostrils, the scalp was pulled down over the skull like a glove, and finally detached at the lips. Of the rest of the hide we made a rug, cutting down the center of the abdomen and out inside the legs. Both scalp and hide were carefully scraped of all shreds of meat, well salted and then aired in a cool place out of the sun's rays, for it *can* get hot at midday even in November, and the hair is apt to slip.

JEM had been attending to the snowshoe rabbits during his day's hunt with the beagles. He came into camp lugging two snow-white buns, each a yard long. Ab did not show up that night. He had denned out somewhere on the trail of that bear, and not even a lone howl from old Dime baying the moon whispered to us out of the forest distances.

On the next day I took the bird dog and ranged the hills for grouse. The places I have had best success with them, are in old lumber cuttings and lumber roads, particularly on the sunny south sides of hill slopes, where they love to dust and scratch for beetles under the dry chips. Scout and I had a rare day hunting the slashings, the good old Laverack finding eight birds for me, of which I saved five.

That evening we found Ab in camp, and with him he had brought a glossy black bear of some 250 pounds.

Duck-shooting is more or less haphazard in a camp like this. At home we go well provided with home-made cork decoys, with carved wooden heads. We buy the cork in slabs, just as it comes from the tree, about 2½ inches thick. We make our stools a quarter size larger than life-size, 14½ inches long [CONTINUED ON PAGE 15]

Is It Worth Your While as a Farmer To Go to the International?

By Charles S. Plumb

Corresponding Editor for Farm and Fireside on Livestock and Dairy Subjects, and Professor of Animal Husbandry at Ohio State University

NINETEEN international livestock expositions are now of record up to the year 1920, inclusive, and it is no extreme statement to make that nowhere else in Europe or America is such a comprehensive and well-managed show of horses and meat stock displayed as at Chicago. During the course of time the International has broadened its work, so that to-day it includes extensive exhibits of breeding cattle, sheep, and swine, as well as large and instructive displays of cereals and hay.

Each year, as the time approaches for the International, without doubt many persons ask themselves whether it will profit them to attend this show. The writer has missed but one International—that of 1913—so that some comments on its administration and work may be of interest to FARM AND FIRESIDE readers.

The impressive central feature of the International is the amphitheater, a dignified steel and concrete structure 600 feet long, with large exhibiting space and a great seating capacity for visitors. Connected with this are four capacious wings in which livestock is stabled, while closely associated are other buildings with extensive stall accommodations. The carload lots of cattle are in uncovered pens, while those of sheep and swine are housed in the buildings for these two classes of livestock.

The International is a great educational institution. Each breed of livestock is grouped by itself in the same stable. The breeding cattle are housed in the wings connected with the main amphitheater. The cattle of each exhibitor are grouped together. Every animal is given an entry number, which is conspicuously fastened in front of it. This number corresponds with one in the exposition catalogue.

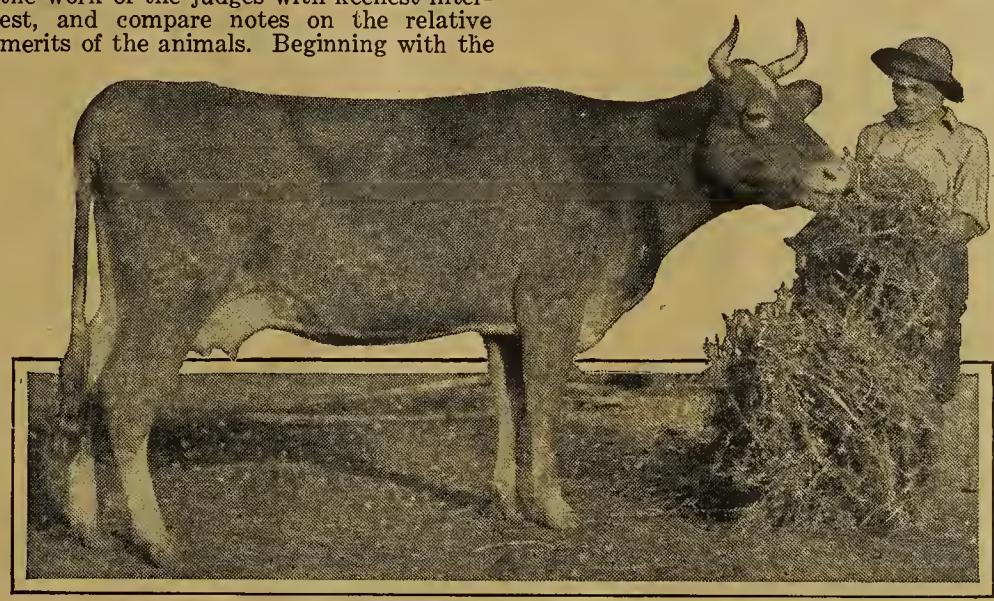
IN 1920 this catalogue comprised 374 pages. In it the visitor finds the rules governing the show, the program of events, the names of officials, and the list of entries of animals under each breed, cross breed, or grade. With the catalogue in hand the visitor may stroll about among the stables, and, by consulting it, at once ascertain the name of the animal before him, its age, names of sire and dam, and of owner.

Animals of the same breed and age class are lined up in the amphitheater, where the judges consider them and assign them their places of relative merit. Each attendant wears cards on which are large numbers corresponding with the one in the catalogue, so that it is simplicity itself to watch the judges at work and, by consulting the catalogue, inform one's self of the identity of the animals in the ring.

Here we find in competition on the tanbark many of the most noted show animals of America, and thousands of stockmen gathered from all over this wide land, watch the work of the judges with keenest interest, and compare notes on the relative merits of the animals. Beginning with the first show, the management has invited distinguished judges each year from Great Britain to assist in making the awards, and this has added greatly to the dignity and importance of the work. Judges from Argentina and Uruguay, South America, also have passed on the great Shorthorn and Hereford shows. The preëminent value of the show of livestock is the opportunity for study and comparison of types and breeds of animals.

No man could by any possibility become a great breeder who has never made a comparative study of animal form, and where is so fine an opportunity as at this great show?

The fat classes at the International have a very special educational value. After being judged alive, many of the cattle, sheep, and hogs are entered in the carcass contests. The animals are then taken to packing houses, where they are killed, and very careful record is made of the important factors of waste and edible carcass. Each carcass is then placed in the cooler, where after cooling it is judged by a competent butcher, and given its proper rating. Then the carcasses are displayed to the public, on which occasion those interested may make comparative study of the same.



Here is Chester Allen Jones of Lebanon, Indiana, and his Guernsey cow which last June won him first prize in the Boone County Guernsey Calf Club, Contest No. 1. Chester's cow made a score of 96.3 out of a possible 100

> THE International Livestock Exposition at Chicago begins November 26th and ends December 4th. If you have never been to the International, go to see the greatest collection of prize livestock shown anywhere, from which you can learn things that will help you in your business.

One most interesting International event is the "free-for-all judging contest." In this case a group of steers is entered for slaughter, and as many persons as may desire, upon the payment of a small fee, will be given the chance to judge these steers and give five of them a rating. The steers are then slaughtered, and the carcasses graded by a judge, and the five persons who most correctly judge the steers for killing are awarded the fee money, divided among them pro rata. It must be conceded that a good judge should be able to pass intelligently on the killing value of an animal, and such a contest as this gives one an opportunity to try out one's self under very interesting and instructive conditions.

The car-lot exhibits, gathered from many States and representing the choicest stock of different ages and classes, are wonderfully interesting. The foreign judges have on more than one occasion expressed their astonishment at the unusual excellence of the animals shown, and have stated that they have never seen such displays before. Each year so many carloads are submitted for competition that a culling committee has been necessary to weed out part of the entries, in order to reduce the show to a workable basis.

The grand champion carloads of each class of stock represent the finest examples of both the feeder's and breeder's art. Here are most impressive object lessons in comparisons of loads of prize winners of different degrees of merit. The breeder of Shorthorns looks with special interest on the carloads of his favorite breed, and if the purple rests on an Aberdeen-Angus load he is sure to draw interesting conclusions therefrom.

THE International as a stock show is made doubly interesting by its proximity to the great packing houses of America. Each year the leading packers keep open house on this occasion, and an almost endless procession of men and women passes through the enormous buildings, and witness the various stages of handling meat, from the killing beds to the cooler. Here one sees the meat industry reduced to such perfection of detailed management as can be witnessed nowhere else in the world. It has been sometimes said that the two things that most interest travelers in America from other countries are Niagara Falls and the Chicago stockyards and packing houses. It is an old yet pat saying, that the only thing lost by the packer in his business is the squeal of the pig, and some day he expects to make some good use of that.

I think one of the most impressive features of the International is the great gathering of men who are deeply interested in the breeding and feeding of meat-producing animals and heavy horses. At this time the hotels of Chicago are filled, largely with visitors to the show. The Stockyards Inn, at the gateway into the yards, for a week is filled with stockmen, among whom are many of the most distinguished breeders and feeders of Canada and the United States.

The gatherings [CONTINUED ON PAGE 18]

Another Voter Badly Stung

"Ah's done got er vote ticket. I'se gwine ter play I'se votin'"—

"Mek out dat ole bee hive am a ballit box."

"Lor' massy, dey's bees in it!"

"Pappy done say dat's jes lak real votin'—no matter how yer vote, yer gene'lly git stung."

The Kitty Twins
At Gran'pa Grimalkin's Farm

Pictures taken by Harry W. Frees

Prowler and Purra start off for a little work in the garden

As soon as they have eaten their lunch they go fishing down in the meadow pond, where Prowler hooks a big one. Purra hurries to his assistance.

Here we find the bringing home the catch

On the way back they investigate a bird's nest

Then they go after a load of hay for Bossy's supper

And after that they gather the eggs for Grandma Tabby

A little later Purra gives Prowler a swing under the old apple tree

The end of their perfect day

"I Never Let a Pig See Its Own Birthday"

By W. C. Smith

Of Indiana, who wrote this story about one of his State's best hog growers

"I NEVER let a pig see its own birthday," said Billy Mason, the man folks had told me was the best pig raiser in Grant County, Indiana. "I want them to grow and to take on flesh from the day they are born until the truck comes along to take them to market. I can't tell you much about raising pigs, for I don't know enough about it. If a fellow has good brood sows and will look after them, and if he will get his pigs started off right, he is about half done, I think."

"Yes," I replied. "Yes, I reckon you are right. But how about that sow there—isn't she a little fat to be so close to farrowing time?"

I wanted him to tell me how he did it, and I wanted him to start at the beginning.

"Not for me," he cut in. "I want a sow to carry enough flesh to look smooth. I don't feed my brood sows the day after farrowing, and the sow that is in good shape has the advantage. She is more quiet, too. Now, a thin sow is mighty hungry—they are likely to be after farrowing. She jumps every time you come about her, and sometimes tramples her pigs. Then, if you feed her enough to satisfy her craving, she is likely to start a heavy milk flow—more than the pigs can use, and it throws them off right at the start. I suppose this is because the sow's udder hurts her and causes some fever. Of course, a sow that is overfat is not desirable, but they can carry considerable flesh without being too fat, you know. You can handle the thin sow so as to have no trouble, but I would rather take my chances with one that is nice and smooth—what some folks would call fat."

"How do you feed your brood sows?" I asked.

"Well, you have to feed a little differently for spring litters than for the early fall ones. In the spring, say in February and March, there is no pasture, so the sow won't exercise much unless she has to. I feed them at the opposite end of the lot from where the houses are, so they have to walk around some. They get grain twice a day, and very often slop at noon. I use ground oats mixed in skim milk when we have the milk. When we don't have it I feed a little tankage. Sometimes I scatter a few oats in the lot when I am not feeding ground oats. The sow will nose around in this, and get some exercise as well as some mighty good feed. I think a lot of oats for both brood sows and pigs.

"WHEN the weather is open and the pigs do not arrive until about the middle to the last of March, I usually have some rye pasture for them to run over This green pasture certainly makes a difference in their care. In the fall we either have a rye field or a clover patch, or both, for the sows, so that about all that is necessary is to feed some grain, keep water before them, and see that they don't go off in a corner some place to farrow instead of using the house that has been provided."

Mason accustoms his sows to these houses by starting to feed them inside about a week or ten days before they are due to farrow. They get used to coming in, and they also get used to him fooling around their homes, and are less excited when he comes in to take care of the pigs and to feed them after the litters arrive.

"Lots of folks think it is too much trouble to slop hogs," continued Mason. "I slop mine—especially the pigs after they are weaned. Of course, I use self-feeders for corn and tankage, but we aim to use all of the milk we get. We sell our cream and have the skim milk left. Last year I bought some buttermilk. Milk surely curls their tails, and I would feed it all of the time if I had it or could get it reasonably."

MASON starts his pigs off on a ration of bran, ground oats, and milk. He uses tankage if he has no milk, and they have the run of a rye field or clover. He has never experimented with any of the special pig forage crops, and says he does not need them, and the rye works into his rotation just right. None of the threshed rye is sold, but, instead, is ground and fed to the pigs.

"I like ground rye for pigs," he explained. "I know hog feeders who do not, but I find it very satisfactory. Same way with oats. Nothing makes a better framework than oats—it seems to put pep in the pigs, too. Just as soon as the corn begins to get solid, I begin throwing a few ears over the fence to the spring pigs. I keep these separate, so the older ones won't run over them. As soon as they get used to the new corn I turn them into a patch of it. If that patch doesn't finish them, I fence off another patch. I pull a feeder full of tankage into the field and let them hop to it. They won't eat much tankage if there is a clover field available, but I leave it before them anyway; for my aim is to make hog out of a pig just as quickly as possible."

Mason makes a 200- to a 250-pound pig in about seven months. He has found that by having his sows farrow about the first of March he can hit the market with his pigs in September, when the market is good. He follows the market closely, and has found that, as a rule, the low point for the 200- to 300-pound hog comes in November. So he tries to beat the game by getting his pigs off before the slump comes. Hogs of this weight do not fluctuate as much as do the heavier ones, and he has found the lighter weights to be the most profitable for him. The price usually begins to start upward along in December or early January, after the fall slump, and if he has a bunch ready for April they are likely to make him a nice profit. Also, he has found July a good market month, and this fall he expects to breed his sows in order to make this market.

I ASKED him what he considered to be some of the most common causes of hog failures.

"That would be pretty hard to say," he laughed. "What might be just the thing for me might not work at all for the other

[CONTINUED ON PAGE 21]

How I Keep My Hens Laying When Eggs Are Dear

By Mrs. Grace Hartman of Manhattan, Montana

I HAVE found that the secret of making the chicken business pay is to get hens to lay when prices are high. When I first started I found that the problem was to get hens to lay in November and December, and so for two years I have been giving much thought and attention to our hens during these two months. This extra effort has been decidedly profitable. At first I was not very successful, but this year I have been getting eggs which bring a premium of five cents the dozen above market price.

My plan is to raise early pullets, culling the flock carefully during November. When I find a hen or pullet with close, tight pelvic bones, a small dry vent, long toe nails, and dull comb—all hallmarks of a poor layer—that hen is branded for market by putting a piece of red worsted on her leg. During the holiday season is a good time to get rid of these loafer hens, as there is demand for them then at a good price.

Selling hens in November and December helps also to keep your monthly income balanced, as you can never expect to secure as many eggs at that time as during the other months. Also, by reducing the size of the flock in November and December, the better hens have more room during the winter months when they must be confined indoors. The reduction in the feed bill helps, too.

In culling our flock recently, I was surprised to find a lot of body lice on a few hens. This led to a second examination of each hen. The roosts and nests were carefully cleaned, and treated with kerosene; then every hen was powdered with sodium fluoride to kill the lice.

This is Mrs. Hartman and part of her flock which earned $455 in 1920

During November and December my chickens are fed most carefully. Early every morning they are given warm milk; their houses are cleaned out, and floors covered with rakings and alfalfa hay. The hens immediately begin to scratch, and soon get up a good appetite for a late breakfast.

I have large windows in my hen houses, so that the hens scratch and work in the sunshine. If the weather is at all favorable, I allow them to run out during the warmest part of the day.

AT ABOUT 11 o'clock grain is scattered through the rakings. At present I am feeding corn, oats, and barley. At one o'clock a warm mash is set before them. This varies, as hens, like people, enjoy variety. To-day I cooked large, coarse beets, to which is added warm milk and a little bran. To-morrow I may feed small cooked potatoes. I often scatter sunflower heads among the rakings. Liberal quantities of skim milk and cool, clean drinking water are available at all times.

At four o'clock a liberal amount of grain is fed. This is placed where they can easily get it, as hens must be well fed before retiring if you expect them to lay. Oyster shell, gravel, and a dry mash in hoppers are always on hand.

I never keep a sick hen or a persistent loafer. It doesn't pay. I kill them at once, and make a post mortem. This prevents disease from spreading, and my little flock is thus kept healthy at all times. I visit my chickens at least four times a day, and observe them carefully. Chickens, like cows, respond to a kindness and attention. They flock around me and "caw-caw" in the most friendly manner. I believe that a happy and contented hen lays better.

From a flock of about 50 hens and about 25 pullets, I have gathered in early December from 8 to 15 eggs a day, and our pullets are just beginning to lay nicely. I plan to keep 40 Rhode Island Reds and 20 White Leghorns in my culled flock. I find in our cold climate, where we have many nights below zero, that our Reds lay better. Last November, however, one of our purebred White Leghorn pullets laid 21 eggs in 30 days, and several other White Leghorn pullets did almost as well.

I gather the eggs several times a day during cold weather, and any that are frozen or questionable are kept for our own use. By delivering our eggs, and by guaranteeing every one, I get the top price. I plan to enlarge my plant until I can market at least a case of eggs a week the year round.

The care of chickens is my special hobby and recreation; I hope to make it a large, well-paying business.

In the twelve months of 1920 my little flock of 60 early pullets and young hens laid 10,806 eggs. This is how my account sheet looks:

Sales—738½ doz. eggs at 48⅓c	$356.94
Used—162 doz. eggs at 48⅓c	78.30
Sold—10 fries	10.48
Used—10 fries at $1.00	10.00
Total	$455.72

In addition to the above total of $455.72, I had left a well-culled flock of 60 hens, ready to begin another year's work.

AGRICULTURE has made great advances in modern times, but the advice of Pliny the elder, who lived twenty centuries ago, is still good for gardeners: "Dig deep, manure well, work often."

Don't Let the Pinheads Hurt the Farm-Bureau Movement

THERE has been a good deal of quarreling and unpleasant feeling among members of the farm-bureau movement over salaries paid to the national officials. Some of the members think $10,000 to $15,000 is too much to pay any official for anything. Many of the salaries have been cut a few thousand dollars in consequence.

What a ridiculous, small-minded performance! Farmers never will get anywhere with real national organization by acting that way. If Charles M. Schwab finds it profitable to pay Eugene Grace $1,000,000 a year to be president of his Bethlehem Steel Company, the Farm Bureau Federation, which is potentially a much larger and more important organization, certainly *must* pay its directing heads much more than a paltry $15,000 a year if it is going to attract the caliber of business brains that will make the Farm Bureau a success.

The success of the farm-bureau movement nationally is so vitally important to the future individual prosperity of every American farmer that it can well afford to pay *any* price to get competent men to manage it. The sooner we get the idea out of our heads that national organization of agriculture on a sound business basis is a small-time affair, whose management is to be directed by the aggravating minority of peanut-minded men whose petty jealousy makes it impossible for them to contemplate calmly the spectacle of anyone's ability to do more, be more, or have more than themselves, the better off we'll be.

The only test that any man should be subject to in the matter of what he gets is that he prove, by what he does for us, that he is worth it. And the farm-bureau movement needs men who are worth a lot. THE EDITOR.

"Books That Have Really Helped Me to Be a Better Farmer"

By E. L. D. Seymour

A SHORT time ago I set out to get evidence to prove my theory that representative farmers are careful, discriminating readers to a much greater extent than most people realize; that they read with a definite purpose in mind; and that, therefore, they have a clear idea of what books are good and what books are not good—for their particular purposes. Also, it has often occurred to me that, assuming that there are some successful "book farmers," their own ideas as to what are the best farm books might prove mighty interesting and helpful to lots of the rest of us.

With the coöperation of FARM AND FIRESIDE, I sent a personal letter to something over a thousand leading farmers, county agents, and other practical farm workers asking for their suggestions as to the books that any farm family ought to own *and read*. Part of the letter went about like this:

"Will you jot down—on the back of this sheet, if you like—the names of the farm books that have proved of most value to you and your family, and mail the list back to me? You can name three, a dozen, twenty books if you like, so long as you know from experience that you wouldn't want to be without them, and think that they could help other farmers. If you can add a few works that you think every farm boy or girl could read with profit, so much the better.

"And if, on the contrary, you have made good without the help of books, and believe that others can do so even to-day, don't mind saying so. I want your opinion, so that I can get some idea of how many really helpful books there are, and what they are. I think the result of this inquiry will interest you; I know it will be of great help to many FARM AND FIRESIDE readers."

As it happened, this letter went out during the busy summer season, when a number of farmers found it impossible to answer it as they would have done at a more convenient time. However, I have before me something over 225 replies—an indication of a mighty generous spirit of helpfulness, by the way—which contain many exceedingly interesting opinions.

Some who replied misunderstood my letter, taking "books" to mean farm journals, and a few simply didn't have any ideas on the subject. On the whole, however, the replies came from so many parts of the country, and from so many different types of farmer, that they are much more representative than the number might suggest.

THAT these farm workers really know something about books is suggested by the fact that in the two hundred odd letters 329 titles are mentioned. Of these, 182 are mentioned only once; 95 are listed from two to four times; 25 occur in from five to nine lists; and 26 are found in ten or more of the letters. On these twenty-six most popular books there is enough agreement to warrant calling a few books real "best sellers." As to authors, I did not figure up the total number, but I find that one man has fourteen books in the entire library, one has five, five others have four apiece, three are mentioned thrice, and quite a few have contributed two books to the farmers' shelves.

Now, I can imagine that, no matter how interesting this sort of data is to the person who likes to play with statistics, most of you are more desirous of knowing just which books and which writers drew the heaviest poll of votes. So here are the leading twenty-six volumes:

	Votes
Feeds and Feeding, by Henry and Morrison	131
Farm Management, by G. F. Warren	42
Soil Fertility and Permanent Agriculture, by C. G. Hopkins	38
Types and Breeds of Farm Animals, by C. S. Plumb	31
Dairy Cattle and Milk Production, by C. H. Eckles	27
Soils, Their Properties and Management, by Lyon, Fippin, and Buckman	24
Insects of Farm, Garden, and Orchard, by E. D. Sanderson	22
Diseases of the Horse, Diseases of Cattle, Published and Issued by U. S. Dept. of Agriculture	20
Southern Field Crops, by J. F. Duggar	16
Cereals in America, by T. F. Hunt	16
Fertilizers and Crops, by C. C. Van Slyke	14
Productive Poultry Husbandry, by H. R. Lewis	14
Forage Plants and Their Culture, by C. V. Piper	14
Injurious Insects, by W. C. O'Kane	14
Judging Livestock, by J. A. Craig	13
Productive Orcharding, by F. C. Sears	13
Productive Farm Crops, by E. G. Montgomery	12
Diseases of Animals, by N. S. Mayo	12
Milk and Its Products, by H. H. Wing	12
Principles of Fruit Growing, by L. H. Bailey	11
How Farmers Coöperate and Double Profits, by C. A. Poe	11
Farm and Garden Rule Book, by L. H. Bailey	11
Principles of Breeding, by Eugene Davenport	11
The Story of the Herefords. The Story of the Shorthorn, by A. H. Sanders	11
Principles of Soil Fertility, by Alfred Vivian	10
Sheep Management, by Frank Kleinheintz	10

This is a picture of Mr. Seymour showing how he spends part of his time on his place at Hempstead, Long Island, New York. It may look like he's trying to cut down this fruit tree, but, really, he's just pruning it

Right there I should say, is a pretty good and practical library for the average farmer. With the exception of "Southern Field Crops," the books are equally valuable in all parts of the country, and, except for the two books on insect pests, the somewhat similar "Types and Breeds of Farm Animals" and "Judging Livestock," and the three works on Soils—which, as a matter of fact, are not at all alike—there is practically no duplication.

I have often heard it said that if books are to be understood by farmers they have to be written very simply and free of all technical words; certainly that list of books effectively contradicts such a statement. Anyone who has read "Feeds and Feeding," "The Principles of Breeding," the Department of Agriculture's animal disease books, and, for that matter, Warren's "Farm Management" will, I think, agree that if farmers can read and use them—as we find is the case—why, those farmers have advanced considerably beyond the elementary class. Indeed, I believe that a clear, straightforward style of writing and, on the part of the reader, a real interest in the subject and a considerable fund of practical experience are much more important than simple language. Given those things, a farm book is capable of making good whether it is written in "first reader" style or is jam-full of agricultural technicalities.

It is interesting, and somewhat surprising to me, to find in this two dozen "most useful" books no purely reference book, such as a cyclopedia. One reason for this, probably, is the cost of three and four volume sets; another is the apparent preference for compact, complete manuals on separate subjects rather than bulky collections of miscellaneous information in which answers to specific problems have to be searched for and dug out. However, L. H. Bailey's "Cyclopedia of American Agriculture" follows closely after the above list with nine votes; Wilcox and Smith's well-known "Farmer's Cyclopedia of Agriculture" and "Farm Knowledge," a four-volume cyclopedia, receive three votes each; Bailey's "Cyclopedia of American Horticulture" is mentioned twice; and the "Cyclopedia of Practical Horticulture," a Northwestern publication, and H. L. Batson's "Cyclopedia of Agriculture," with which I am not familiar, get one vote apiece.

Moreover, according to one man who answered my letter, "A good dictionary and encyclopedia are, of course, essential to any farmer," and another one says:

"A valuable collection of books would include a good cyclopedia of agriculture," but whether he means that there is none such, or merely that he has not yet found one, I cannot say.

IN THIS connection, and before we get too far away from the list of most popular books, it is interesting to note what one correspondent has to say of the work which, apparently, is the best known farm book in America to-day. He says:

"Feeds and Feeding" holds the same relationship to other agricultural books that a good dictionary holds to books of general literary value. If you were restricted to just *one* good agricultural work—choose it."

On the other hand, one other writer places another book even above Henry and Morrison's when, after giving a list of practical farm books, he says:

"Before anyone can be in perfect harmony with livestock production, growing crops, and raising livestock; before he can appreciate what care, sacrifice, and devotion really are—he should read the Holy Bible, the book I should put first."

AND, after all, though it was mentioned only that once, I believe that that book has played a big part in the literary development and character-building of American farmers—a bigger part, I mean, than in the lives of any other distinct group of workers. Their close contact with nature, their independence, their enforced coöperation with the elements, has, it seems, brought farmers a faith and an understanding that has made the Bible and its philosophy real and vital to them. It is this, I think, that lies behind this suggestion contained in one of the letters: "Farmers should have some inspirational books; here are two: 'The Farmer and the New Day,' by Butterfield, and 'The Holy Earth,' by Bailey."

Needless to say—though, perhaps, I ought to have said it sooner—I don't expect everyone who reads these ideas and conclusions to agree with them. What chance of complete agreement is there if a discussion that brings in answer to my letter such contrary opinions as these:

"DEAR SIR: I do not know of a single book that is of any use to a practical farmer."

"DEAR SIR: I have found only one or two poor books along agricultural lines."

Frankly, I think the pessimistic point of view of the first of those two correspondents is overdone. A number of farmers, it is true, write as follows:

"I have got very little out of books that has helped me with my farm and dairy work and breeding operations. As a rule, you have too much to read for what you get."

"Although twenty years in the fruit-growing and farming game, must admit that we have made little use of formal works or books. We have been, however, in constant touch with the agricultural colleges and the Department of Agriculture."

"Very few farmers who really farm can take time to read a great deal. If they can read a couple of *good* papers . . . they can keep abreast of the times."

"On thinking over your request, I am surprised to discover how little I have depended on books for inspiration in my job of making beef and pork. A textbook or two—"Feeds and Feeding," Coburn on "Hogs," and "The Story of Alfalfa"—have been helpful, and Sanders with his stories of the Shorthorn and the Herefords, has entertained me. But mainly I have got my ideas and aspirations from men who don't write books. . . . It seems to me that a farmer needs the current literature of his business more than volumes on it."

A CONSIDERABLE number chime in on this note regarding the "current literature" of the farming business. Says one:

"I have relied solely on agricultural papers, magazines, and journals, together with U. S. and state bulletins, and have attended a good many farmers' institutes and short courses."

Another one writes: "My practice has been to keep posted along my line of occupation by reading all the latest bulletins and best farm papers that are constantly keeping pace with the latest and best methods that have been worked out."

Still others say, in various forms: "There is nothing equal to the government and college bulletins. I have found that a careful selection of them, properly filed, has been of more use to me than a large percentage of my books. These publications and the agricultural [CONTINUED ON PAGE 16]

How My College Training Has Paid Me

Prize Contest Letters by Farm and Fireside Readers

First Prize $10

Won by A. H. de Graff
Adams Center, New York

PERHAPS the above heading is misleading in my case, since I graduated from Cornell only last June; but, on the other hand, I think I am more capable of judging the value of a college training than most graduates, because I have farmed for fifteen years.

I probably needed college training in agriculture less than some folks, for my house is full of bulletins and the best agricultural books, all of which I have read, and many of which I know almost by heart. I have applied the knowledge acquired in this reading, making a fifteen-year practical laboratory course in farming. I went to Cornell after I rented the farm so as to go into the army, and then failed to pass the physical examination. It probably cost me over $2,000 a year, counting what I lost by not being able personally to supervise the farm, but I would do the same thing over again. I do not regret a cent of the money.

One could write a book on the benefits of a college education, but in this letter I will try to touch a few of the high spots. I took all the farm engineering courses I could get into my schedule, and, although I had been using farm machinery, gas engines, and autos for years, I consider that what I learned about these things at Cornell was invaluable. I learned to time an engine, adjust a binder, and many similar tasks in a few minutes, and to do them properly. I eventually could work such things out before, but now I go direct to the point. And I consider a thorough knowledge of farm machinery and power to be one of the most important requisites for the modern farmer.

I have a small tractor, of a popular make, and while I was away it developed a knock. A man came up from the garage to fix it. He did. He fixed it so that it would not go at all, and charged me $7 for his trouble. When I got back I repaired the wiring in a few minutes myself, and it ran. Then I spent about four hours taking up the main bearings, and the tractor was as good as new. I have found that if one wants anything done right the best way is to do it himself, and to do this he must *know how*.

The farm-management courses alone were worth the whole time spent in college. I have seen good farmers wasting their lives on farms that, because of small size, poor conditions, or wrong systems of farming, were incapable of giving good returns. A knowledge of the principles of farm management enables one to spot the weak points in a short time. I have changed my own system materially since getting back on the farm, so as to get the best combination of good labor distribution and the most profitable crops; and I really believe that I already had one of the best systems in use in this State. In analyzing the business of dozens of farms—good, bad, and indifferent—you learn to spot the weak points in your own farming.

A test for soil acidity on one field saved me $100 worth of lime, and $50 more in labor hauling and spreading it. The same test has indicated the need of lime on other fields, and the resultant increase in crops has been from 50 to 100 per cent. One can learn at home to make these tests, but he seldom does.

Then the dollars-and-cents consideration is not all there is to being a college-trained farmer. The touch with the college, the friendship with the coming farmers of the most intelligent and progressive class, the greater self-confidence, and the preparation for higher positions, if such should be offered, are equally valuable.

It Paid Me to Go

Second Prize $7.50, Won by R. H.,
Clark County, Ohio

SOME of the things I learned in college often seem mighty unimportant to me now. No doubt I could count on ten fingers the things I learned that have really helped me in my farming business. But I did learn one thing that has been of the greatest value: *how to go about finding out what I want to know.*

There are two things that are absolutely necessary to success in any line, and especially in farming, and every college man can say that his course was a failure unless these two fundamentals were instilled in him at school. They are: First, a desire for greater knowledge and mental improvement; and, second, the knowledge of how and where to find the information required.

When I went to college, agricultural colleges were unknown. Every college had its few so-called courses in agriculture, and I specialized in these. The work was very crude in comparison to that given now, but the simple farming fundamentals taught were the same then as to-day. We did get a groundwork that has made it easy to follow the progress of agricultural science since, and a foundation upon which to build our own conclusions, which are far more valuable than "canned" ones. This background makes it possible to judge accurately the many new methods and ideas given to the farmer every year.

My college education has paid for itself. It didn't cost me much, but I've made it back many times. Three years ago I became undecided about the use of high-priced fertilizers, and before buying I took a soil sample from every field on my farm, and sent it to the state chemist for analysis. The finding here alone saved $500 that year, for I discovered that I had been using a fertilizer element which was unnecessary.

Last summer a big hay rope in my barn broke. I'm not a splicing expert, but I knew that I had a government bulletin which told how in detail. Through my card index system I located this bulletin in a few seconds, and in forty-five minutes I had, by following the pictures and descriptions, made a splice which lasted successfully throughout the haying season. I attribute my success with a tractor entirely to the understanding I got of engines and plows while at college.

It is impossible to overestimate a college's benefits. In the first place, it makes men; then it shows them how to become better and more useful men. Of course, many of our greatest business men did not go to college, but the college undoubtedly is a short cut. Their lack of a college education has meant longer and harder work for them in preparation.

a b

Miss Gould's Own Recipes

for using up the scraps and bits and yard-or-so left-overs

Another of Grace Margaret Gould's Monthly Chats

HOW about the odds and ends and bits and scraps of material? Are they just taking up closet room? When the work lets up in the fall, it's a good time to clean up the piece bag. If you are handy with the dye pot and dip your drab scraps in bright colors, you can make your workaday frills as cheerful an asset to the home as the red geranium in the window. Perhaps you wonder what I mean by workaday frills. I am thinking of the morning caps and aprons that are cheery and, above all, becoming. When everything is dull and dreary out of doors, a rose cap or a gay-flowered apron will do wonders to make the day seem brighter.

Perhaps you have an oblong of flowered chintz left from the curtains in the guest-room that will make a peasant cap like cap *a*. It's just bound at the outer edges, and the plaits held with snaps so it can be opened out and ironed flat. If you happen to have a half-circle of dimity from a summer dress, all you need to do is to scallop and bind the edges and sew on tapes for the ribbon to run through and you will have a cap like *b*. And no doubt you have two scraps of blue gingham that you can bind with old rose for cap *c*. The small views at the bottom of the page show how the caps open out flat to iron.

It's not only the left-overs that you can make into caps, but you will probably also be able to salvage pieces big enough for whole caps and binding from your worn-out summer frocks and underwear. Even plain white lawn or muslin will make a delightful cap if dyed mauve and edged with yellow. It makes a pretty Christmas gift, too, and one that costs practically nothing.

Then, too, the smock apron. It's a suggestion for the left-over yard and a half. Have you wanted an apron that would also serve as a blouse, and that you could wear with your old skirts? It makes an attractive morning frock when worn over a cloth skirt—a warmer costume for chilly winter mornings than just a cotton bungalow apron. A glance at the small view at the bottom of the page will show you that it's cut in just one piece. I vouch for the simplicity of the construction, and also for its prettiness if you make it of flower-sprigged sateen, cretonne, or a gay-colored calico.

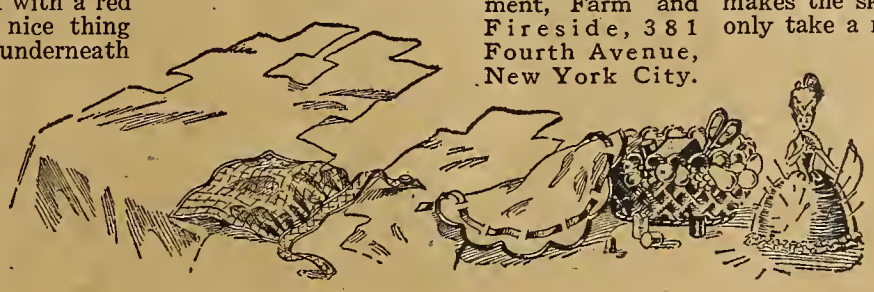
My last suggestion will probably surprise you. It's a way of using up your worn-out stockings. Make them into Christmas gifts for the children. Jolly, huggable Benny Bin in the picture is a stocking doll. He has an embroidered white face and black sports suit, and his cap is topped with a red yarn pompom. Another nice thing about Ben is the fact that underneath his little sports suit he is cut in just two pieces. His arms don't need sewing on, and there aren't any intricate little pieces to shape him. For, you see, he is the new kind of a flat rag doll that is so easy to make.

No. FF-4103—Morning Caps That Iron Flat. One size. Pattern, sixteen cents.

No. FF-4104—One-Piece Smock Apron. 36 to 42 bust. Pattern, sixteen cents.

No. FF-4105—Stocking Doll (including Transfer Pattern for Face.) One size only, 9 inches tall. Pattern, twenty cents.

Send pattern orders to Pattern Department, Farm and Fireside, 381 Fourth Avenue, New York City.



Looking Your Best

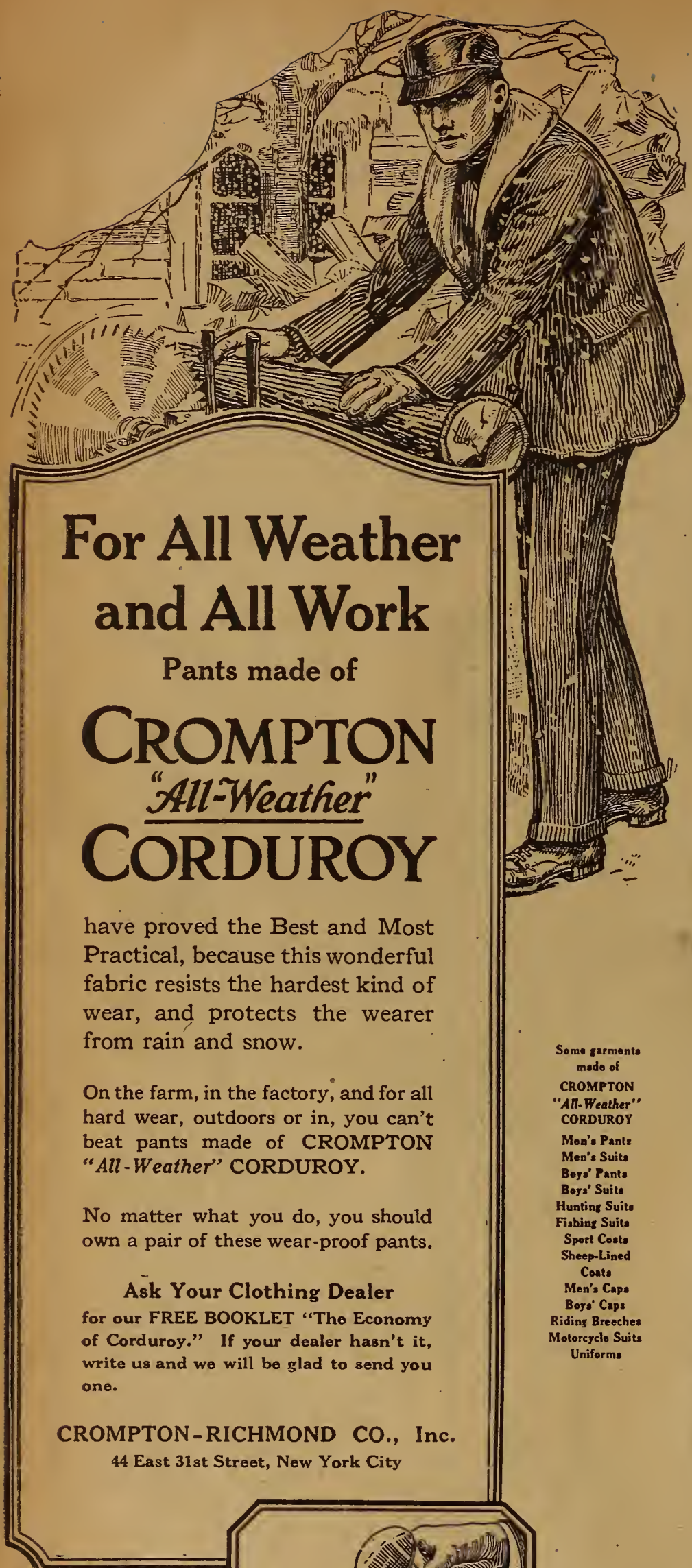
COOKSTOVES and complexions! You've never thought of them as friends? Well, most of us don't, but they really are. For, after all, what is cooking a big dinner but giving your face the preliminaries of the steaming treatment that the beauty parlors charge so much for? Only you mustn't stop at the preliminaries if you're after a pretty skin. You must follow the same course as the beauty shops do.

After the dinner is cooked—that means after the steaming is over—take a clean towel and wipe your face thoroughly. Be especially careful of the corners where the blackhead is most prone to congregate. You see, the steam has opened all your pores and brought every bit of oil and foreign matter to the surface. When you wipe this away, you leave your skin very clean.

But, besides being clean, the skin is now relaxed and every pore is gaping open. To correct this, take the other end of the towel and dip it in the coldest water you can find. Slap it vigorously against the whole face, not neglecting the neck. What is the charm of a pretty face if it surmounts an ugly, dingy neck? Press your hardest against the muscles that are most likely to sag, and try to smooth out the little fine lines that fatigue brings so quickly under the eyes.

This treatment closes the pores and makes the skin firm and smooth. It will only take a minute or two before you sit down to dinner. But you will find that it is a minute or two well spent. For if you persist in turning your cookstove into a beauty parlor you'll find that your skin is becoming more attractive.

Miss Gould gladly answers inquiries.



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CORDUROY

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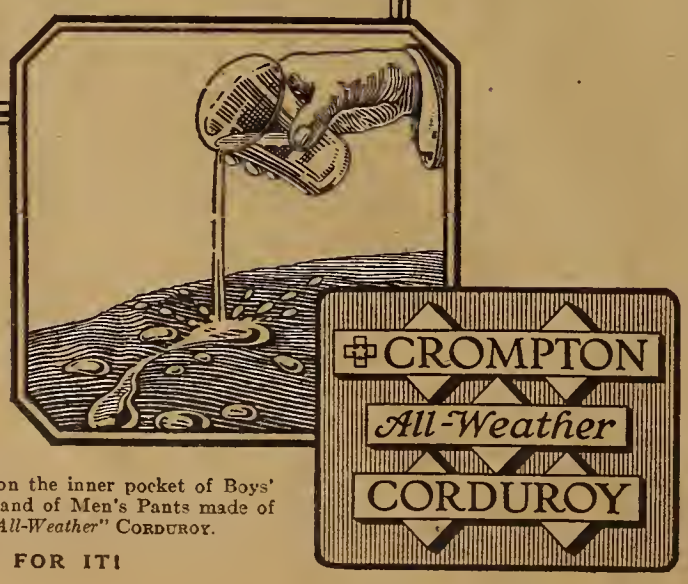

THIS LABEL is sewed on the inner pocket of Boys' Suits and on the waistband of Men's Pants made of the genuine CROMPTON *"All-Weather"* CORDUROY.

LOOK FOR IT!

Questions We Get from Farmers

Perhaps the answers will help you, or maybe you have a question of your own to ask

GETTING the wounded or needy ex-service man's viewpoint comes easy to Richard T. Bell, who handles all such questions for FARM AND FIRESIDE readers. For Mr. Bell has not only seen a lot of active war service himself, but also went through a fourteen-months siege in hospitals, before his war injuries were healed. As director of the Service Division, New York State Headquarters of the American Legion, he is now in close touch with the different hospitals and government bureaus, so that when you write him for help you can be sure you will get it, if you are entitled to it.

Richard T. Bell was born September 5, 1894, in Macon, Georgia. He lived in North Carolina from 1898 to 1900. The next fourteen years were spent in school in Louisiana; in 1914 and 1915 he lived in Washington, D. C. Before going into the service he was in the insurance business. When the Mexican trouble broke out, he saw active service, and was wounded several times on the Mexico-Arizona border. Enlisting in the regular U. S. Army in 1916 as a "buck" private, he made his stripes rapidly, and in 1917, when we entered the big fight, he was commissioned. He served with the 87th Division as an instructor in horsemanship. The day before he was to take his company overseas his horse fell on him, and he was badly smashed up. After fourteen months in various hospitals, he was discharged from the army in 1919, and moved to New York City to be under the care of specialists.

It was here that he began to take special interest in fellow veterans who weren't getting proper hospital treatment or receiving compensation. As a recognition of his efforts, he was appointed head of the Service Division of the American Legion in New York State, in 1919. In this capacity he has been very active, not only in his territory, but also nationally. He has had adjusted more than 7,000 compensation and insurance claims, amounting to more than $4,500,000. His work is his hobby—he is always busy trying to help someone. He is particularly interested in club work and in vocational training for disabled ex-service men.

IF YOU were in the service and think you have a claim, or want to ask a question about something, let him help you. When you write Mr. Bell, be sure to tell where you enlisted, what outfit you were with, your serial number, rank, date of discharge, etc. Enclose stamped self-addressed envelope, and address Richard T. Bell, American Legion Representative, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

It is our desire to make FARM AND FIRESIDE a magazine that every reader can *use*. Our staff of Corresponding Editors—each an expert in his line—is always ready to answer any of your questions about farming or the farm home. We don't claim to be infallible, no human agency is, but an increasing number of readers is finding this service helpful. Why not let us help you the next time you have a question? THE EDITOR.

This is Richard T. Bell, who answers ex-service men's questions, as he looked while an instructor in horsemanship at Camp Hancock, Georgia

Gets Federal Help

I am an ex-service man, and was disabled while in the service. The Federal Board for Vocational Education has offered to put me in training, which offer I expect to accept.

Will I be paid a compensation by the Government and my wages also, while going to school, or will the compensation be stopped?

F. T., Arkansas.

REPLY BY RICHARD T. BELL: If you are granted training under section 2 of the Federal Board Act, you will be paid training pay by the Federal Board, and your compensation with the Bureau of War Risk Insurance will be stopped while you are in training; but if you are granted training under section 3, your compensation with the Bureau of War Risk Insurance will continue, and you will receive no pay from the Federal Board for Vocational Education.

The American Legion is advising as many men as possible to take training if they can afford to. I trust this is the information you desire, and if I can do anything for you do not hesitate to write.

Are Iron Posts Durable?

Will you please inform me as to the durability of steel fence posts, as compared with oak posts? Some have advised against the use of steel posts, claiming that they soon rust off at top of ground and will not last as long as oak. Would condition of soil have a tendency to cause this rust? Can you give us addresses of nearest manufacturers of steel posts?

N. E. S., Burrville, Tennessee.

REPLY BY F. W. IVES: Steel fence posts are approximately of the same durability as oak posts. The average life of oak posts is twelve years when untreated. If treated properly with creosote, their life may easily be doubled. The life of steel posts depends upon many things, chief of which is their gauge or thickness. The heavier posts should always be chosen. If you can obtain oak cheaply and creosote the posts, I would consider them preferable to the steel.

NOTE: The names requested in the above letter were supplied, but cannot be printed for obvious reasons. Names of firms manufacturing various articles are gladly supplied by letter.

FARM AND FIRESIDE
The National Farm Magazine
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F. F. Rockwell, *Horticulture*
Charles S. Plumb, *Livestock and Dairy*
Victor S. Aubry, *Poultry*
Mrs. Nell B. Nichols, *Household*

You are invited to ask questions of any or all of these in their respective fields. State your problem clearly and fully, enclosing a stamped self-addressed envelope for reply. Address each editor in care of Farm and Fireside, 381 Fourth Avenue, New York City.

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Doc Delaney Says:

"Of course a farmer has to work hard now, but not like when he had to use a lantern twice a day"

By Homer Croy

Illustrations by Bert N. Salg

This is Doc Delaney himself

I HEAR a good many farmers complaining about the hard life they have to lead, but they don't know what a hard life is. They are talking through their hat, or whatever they got on their head, as the saying is. When I was following my career as a expert vet with a colledge diploma, and had to meet farmers in my official capacity before I had made money in oil and had took up writing, then when a farmer talked about having a hard life to lead he didn't have any headgear on. He was talking strait from the shoulder.

There wasn't any machinery then to do the work. The most scientific machine a farmer had was a wheelbarrow with sideboards, and when the wife got an apple pairer she thought there wasn't much left to housework, and maybe she could make some extra money during her spare time raising bird seed or selling famly soap.

When I was being called for some of the most complicated collic and ringbone cases in the county, a farmer didn't have no use for a bed except when compny come or he got the flux or something, but now if a young man don't take his bride to a bedroom suit with flowers on the footboard and woven canework on the headboard the girl begins to cry for her mother.

In them days he married a girl principally because of how much work she could do, and if she couldn't carry the stove out alone when summer come, and put it in the woodshed, he looked on her as being practically bedrid, but nowdays lots of girls gets married to a farmer and all they know about cooking is how to open a can of French peas without cutting their thumb off.

During them days, in summer, a farmer that didn't get up with a lantern and go out and wake up the hogs and force some food down them was considered practically a man of leisure, or maybe laying for a chance to get on a jury, and if he laid in bed till sun-up the neighbors would wonder how he spent his time, because he wasn't no reader and they never saw him playing mumble-peg.

When it got so dark the horses couldn't follow the rows, or maybe run into the fence and cut their gizzard out, he would come in and eat supper and then go out with his trusty lantern and do the milking. If he had come around his cows without a lantern they would of hoisted their tails and cut themselves on a barbed wire fence ½ a mile away, or maybe run into a scythe hanging in the maple, and dehorned themselves. Now a farmer is seeing the 2d reel about the time he used to be knocking the calf on the head trying to make it let loose.

In them days everything was done by hand, and there wasn't any fancy machinery to pitch it for you or to ride on. Then the hay had to be pitched on the hayrack by main strength, and then halled to the stack and shoved up on top by more of the same method.

If somebody had told him that some day there would be a bull rake to bring it up and a stacker to take it up to the top of the rick, he would have been polite, but sent the oldest boy on a run for help.

And, what is more, if somebody had come along and told him that some day he would be plowing by machinery with nothing to do but sit on a cushion under the shade of an umbrella, he would of signaled to the hired man and grabbed him then and there, before he got to the house where the women was.

In them days all the light they had was an oil lamp with a red bowl, and when compny was coming, or somebody was going to get married, the wife would wash up the chiminey with coal oil and put a paper bag over it, and thought it was good enough for a king. Now a good many farmers makes their own electricity in the basement, or maybe they have gas; but in them days gas meant they better eat charcoal or maybe a little soda.

When they heard anybody coming at night, the farmer was half scared to death, and would go to the door with the lamp in one

[CONTINUED ON PAGE 17]

And when a farmer wanted to take a bath the family got pale—they would be warned to keep out, or they would wish they had

"How I Made My Potato Crop Bigger, at Less Cost"

By Bert N. Pugh of Kansas, in an interview with Frank M. Chase

FOR twenty-five years I have been growing potatoes in the valley of the Kaw River, a dirty, sluggish stream flowing through northern Kansas for nearly half the length of the state. It has brought great richness to its valley, however, the eastern part of it being especially adapted to the growing of potatoes. The Kaw Valley, consequently, has become a region of extensive and specialized spud raisers, among whom I happen to operate the largest single tract of potato land.

During my quarter-century of potato-growing experience I have worked out some methods that have proved very suitable and profitable for me. Some of these have been adopted by other Kaw Valley spud raisers, with good results, and I shall be glad to tell about them for the possible good that they may be to any of you readers who grow potatoes of your own.

I raised 200 acres of potatoes last year on my farm of 240 acres in Shawnee County, Kansas. The bulk of the yield was from 150 to 200 bushels an acre, and, owing to some amazing gymnastics of the market during the digging season, the price per bushel ranged all the way from $1.20 to $3.50. The average gross return to the acre was somewhere between $200 and $250, running as high as $800 for certain individual acres.

It cost approximately $100 an acre to grow this crop. Of course, the costs of harvesting, marketing, and the depreciation of machinery must also be counted out. Nevertheless, I answered "present" when the income tax roll was called last spring.

One practice that has proved especially profitable consists in spending the full year on the job. It might appear to you that after the harvest is over the potato crop may be forgotten until the following spring. But as soon as the digging is finished, which usually is not later than September 1st, I begin to prepare for the next year.

I first sow the potato ground to rye, seeding about one and a half bushels to the acre, partly for its fertilizing value and partly because of its exhilarating effect on the physical condition of the soil. Plowed under, the rye helps wonderfully in keeping the soil in good tilth, besides increasing its capacity to retain moisture.

IT WAS fifteen years ago I began turning under rye to increase potato crops, being the first potato grower in the Kaw Valley to adopt this method of soil improvement. Since then I have had many followers, and it now is quite a general practice among the farmers of this district.

Rye is especially good green manure, because it makes a large growth quickly, grows late in the season, and rots rapidly after being turned under. I really believe rye used this way materially aids in controlling potato scab.

Besides this green manure, I use large quantities of stable manure—all I can get from Topeka, which is nearby. I also ship it in by the carload from Kansas City, Kansas. Ordinarily I can't get all I would like, as I apply it in the winter when the cars needed are being used to haul coal. The manure costs $10 a carload at Kansas City, and though the freight charges are more than three times the original cost the manure is a good investment. Horse manure is best, I find.

Plowing is another winter job that pays. I aim to plow as much of my potato ground in the late fall and winter as possible, turning the remainder in the early spring. Fall and winter plowing is better than spring plowing, inasmuch as it permits the soil to hold more moisture; the rye is more completely decomposed by planting time, and the spring operations get an earlier start. In growing potatoes for market, the last-mentioned consideration is especially important, as shown by the range of prices I accepted last summer.

Planting begins as early as possible, usually about March 15th, and is finished before April 10th. I use Northern-grown seed, mine coming from the famous Red River Valley. Early Ohios are my standby, though I also grow some Irish Cobblers.

The first attention I give the potato field after planting is a blind cultivation, followed by a smoothing by means of a leveling board. This breaks down the small ridges in which the seed has been planted, putting it near the surface, where it germinates more quickly.

As a rule, I cultivate my potatoes about as any good farmer cultivates his corn, going over the crop four or five times. During the last cultivation I set the shovels so they throw all the dirt they can toward the rows. When this is insufficient I use potato hillers to further build up the ridges.

Of course I have to maintain a constant vigilance against potato bugs throughout the growing season. Whenever they become numerous I send out a six-row, horse-drawn sprayer, which combats them at the rate of 30 acres a day. The poison I use is a combination of one part Paris green to three parts lead arsenate.

THE digging season is my busy time. This commenced about July 10th last summer, and, excepting a few days when the antics of the market made it seem advisable to leave the potatoes in the ground a while longer, continued through the greater part of August. Three diggers were used daily, and as fast as they were dug the tubers were loaded in cars for shipment.

It happens that I have somewhat of an inventive turn of mind, and, as growing potatoes is my chief interest, I have turned what talent I have along the line of machinery to aid in producing that crop. As a result, I have built several machines for use in planting and digging potatoes.

The largest

[CONTINUED ON PAGE 13]

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Buick, Model D Chevrolet 490 Cleveland Columbia Dort Ford Hupmobile	Lexington Liberty Mitchell Oakland Oldsmobile Overland Scripps-Booth	$25.00	$2.08	$30.00	$1.67	$35.00	$1.46
Buick Chandler Chevrolet F. B. Cole Essex Grant Haynes Hudson	Jordan Kissel Kar Nash Paige Reo Studebaker Velie Westcott	30.00	2.50	35.00	1.94	40.00	1.67
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With the PHILCO Slotted Retainer

THE "CORD TIRE" BATTERY

Some Say Hanks is Lucky

[CONTINUED FROM PAGE 2]

attained. Occasionally a bunch of feeders is purchased that has already had some feed, making it possible to put them upon full feed more quickly.

The gains obtained upon this ration average about 2¼ pounds per head daily, based on the weights at Kansas City, where the feeders are nearly always purchased, and at Chicago, where the fat cattle are sold. Occasionally, under unfavorable conditions, a bunch will show a gain under two pounds.

The labor of feeding is carried on with three wagons. Two are equipped with gondola beds for hauling the silage, and the other with a deep wagon box divided into two compartments—one for the corn meal, the other for the cottonseed meal, both of which are weighed out for each feed at the local elevator.

No weighing or measuring is done at the feed lots, but the bunks are marked off into regular spaces by crosspieces so that the number of forkfuls of silage or shovelfuls of grain can be regulated definitely to each pen. With trained help reasonably accurate results are obtained.

THE wagons pass down the central driveway, with the silage wagon in the lead filling the bunks on either side. The meals are scattered over the silage. A shovelful of each kind of meal, at each feeding, to each of the spaces into which the bunks are divided constitutes a full feed. While the feed is being distributed, panels suspended above the side of the bunks are dropped to keep the cattle away. No aggressive steer can follow the wagons and gorge more than his share of the concentrate.

The cattle are fed twice daily, the morning feed being the heavier of the two. The second feeding is started about 2:30 P. M., when there is considerable silage left in the bunks, but it is the intention to keep an ample supply before the cattle all day long, so they will not waste any daylight if they wish to eat.

The silage is cleaned up quite thoroughly. In the morning, only a few pounds of refuse are left, chiefly the stems of the ears. These are removed from the bunks before fresh feed is put in. The cobs, although entire, are nearly all consumed. At a Nebraska canning factory, where Mr. Hanks also feeds cattle, the cobs are cut into small pieces, making still better silage.

The salting is carefully done. Only small amounts are given daily at first, until the cattle are fully accustomed to it, then it is kept before them always.

About five men are kept busy feeding and otherwise caring for the cattle. One man cleans the manure from the house, working down one side on one day and back the other side the next day. The canning factory then hauls away the manure when the conditions in the fields are favorable. In early February I found the establishment going under full steam, in charge of Clyde Hanks, a genial young relative of the owner.

THE mortality loss is surprisingly small. Only two head had died out of the season's run of over 1,200, and these deaths were due primarily to bruises in shipping. No case of poisoning from the silage, such as occasionally arises in feeding ordinary corn silage, had yet occurred. Looking at the cross section of the silage stack I noted that the outer part seemed rather dark and discolored, and had a rather fruity odor, as though the silage had started to rot. Even so, no bad results had arisen, and I was told that this part was most palatable of all to the cattle; that they ate it up cleaner. The silage from the center of the pile, though brighter in color, was harder and perhaps more highly acid. Occasionally the large feeds of cottonseed meal have caused partial blindness, but the unfavorable effects did not go far enough to influence the rate of gains or the selling price.

As we went about, the younger Hanks pointed out the type of steer best suited to their plan of feeding. Big-framed, thin steers, rather plain in quality, were the best gainers. Marks of Shorthorn breeding are an asset to a steer, in Mr. Hanks' judgment. Cattle under 900 pounds were not purchased, with the exception of an occasional individual which had to be accepted in order to get a bunch which was otherwise satisfactory. Only a few had the calico coloring that betrayed dairy blood. Some branded cattle are obtained, of course, and a few horned individuals are purchased if the price fully discounts the fact that they are horned. The horned cattle gain about as well as the hornless ones, according to the experience of Mr. Hanks, but require more room at the feed bunks, which can hardly be provided. Such cattle could be dehorned, but the setback which that operation would cause fully offsets the gain in selling price. This would probably not hold if the feeding period were longer.

So-called fleshy feeders are seldom purchased. Rather, it is the practice to buy thin steers and make beef out of them. However, a bunch of Montana cattle in rather high flesh had been put in shortly before the time of my visit. They had been purchased at a bargain at Kansas City, and were due to be marketed at Chicago within a thirty-day limit in order to get the benefit of a through freight rate.

A few stags have been fed with satisfactory results. They are hearty eaters and gain well, and when young ones, not too heavy in the head and neck, are selected, a certain number will pass as steers when finished, and sell at steer prices.

A FEW of the feeders are brought from the owner's farm in eastern Nebraska, where they are raised, but mostly they are purchased at Kansas City. Recently a few were bought at Chicago, as that has been the lower market. A relative in the commission business at Kansas City does the buying at the latter market. None are purchased except from first hands, and then on a cool day, to avoid buying heavily "watered stock."

When marketed, the cattle are not prime, but have a medium to good finish—being distinctly beef.

The cattle are prepared for shipment by a reduction in the silage at the last two feeds, and an increase in the corn meal. At the last feed two pounds of oats per head are given. The cattle get their last drink on the evening of the day before they are loaded, which is usually in the middle of the afternoon. Under the zone scheme it is necessary to load at Onarga for the Chicago market on Monday, Wednesday, or Friday. Friday is chosen at this plant, as the cattle are then held over until Monday, which gives them time to get a good rest.

The various feeding operations carried on by Mr. Hanks make a large business, so that it is possible to keep one man on the market practically all of the time to take care of the marketing operation most effectively. He can be on the lookout for snaps in the feeder alleys, and can gauge the time to ship fat cattle, and so get the full benefit of price bulges.

Others might be stimulated to dreams of avarice by these operations, and in trying to duplicate them fail utterly. There are several elements in the formula of success as achieved in this enterprise. The large scale on which it is conducted, which makes effective buying and selling possible; careful feeding for quick turns, with a maximum of cheap roughage and a minimum of high-priced concentrate—all are factors.

Farmers who ascribe the success of the operation wholly to the cheap roughage available are overlooking some essentials. The farmers of this or similar communities can get roughage almost as cheaply by utilizing in the silo the cornstalks which are burned in many of their fields every year, and these same farmers will have the advantage of cheaper grain denied the concern that must buy corn at the elevator. However, there is no satisfactory substitute for the wise conduct of the feeding operation itself or for skill and experience in the marketing aspects.

"I Made My Potato Crop Bigger"

[CONTINUED FROM PAGE 11]

digger I used in my fields this summer was one which I designed and built. The other diggers, operating on a much smaller scale, were drawn by horses, while a 12-25 tractor hauled the large one. With this machine twelve men and boys were enabled to do the same amount of work ordinarily done by twenty-five men and boys working with ordinary diggers.

My new digger takes the potatoes from the row and lifts them onto a traveling chain belt, meanwhile shaking out the earth. Passing to a second belt, the potatoes slowly travel under the hands of six boys. The boys stand, three on a side, on running boards, and sort the potatoes, putting them on either of two other traveling chain belts that empty the potatoes into sacks on a platform at the rear. Two men on the platform sew the sacks, and dump them on the ground, where they are picked up by a motor truck and taken directly to the cars. The new machine is capable of harvesting five acres a day.

Two of my machines have been successfully manufactured and sold for several years. I myself once engaged in the manufacture of one of the earlier machines, but gave it up because of the absence of sufficient capital behind the venture, so I sold the patents and pinned my faith anew to the raising of spuds.

While I am obliged to maintain a number of horses for work that cannot be performed by power machinery, they are really expensive luxuries. My own experience provides good grounds for this view. It costs me $3,500 to feed ten horses a year, or enough to pay for several tractors.

With land prices so high as they are, about the only way that you and I can expand our business nowadays is to develop more economical methods of production. If I can develop machines that will cut the costs of my operations, I can make better money than by increasing my acreage with high-priced land. This holds just as true in your case. There is always some way of increasing profits by cutting expenses on any farm.

IN CONDUCTING an extensive potato-growing enterprise, I have found that some ability in managing help is quite as important as following the right methods of production and utilizing mechanical power. While the potato harvest is in progress, it is not unusual for me to have a hundred men and boys on my pay roll. To lay out the work of harvesting a large field of potatoes in such a way that they all can be employed advantageously is no simple task.

Farming is indeed a year-round proposition with me. In addition to my potato-growing operations in Kansas, I manage a tract of land in Texas. In this way I raise a crop both winter and summer.

My Texas land consists of 100 acres in the Rio Grande Valley, where I raised ten carloads of Bermuda onions and a considerable quantity of cabbage last winter. Formerly my winter farming operations took place in Florida. My Southern crops are grown by contract, though I try to be on hand to attend to their marketing and to exercise other necessary supervision.

I was born and raised on the farm I now operate, my father having settled upon it when he came from Indiana at the close of the Civil War, and where my mother and sister still live. Although I live in Topeka, my days are spent on the farm, so I manage to keep in pretty close touch.

My education was along literary lines quite as much as in agriculture. After graduating from the Kansas State Agricultural College in 1892, I attended Washburn College and Harvard University. During and since my school days I have had some literary leanings, as an avocation to raising potatoes, especially along poetic lines. In fact, I once published a small volume of poems, and in 1919 was fortunate enough to read the first-prize poem at a meeting of the Kansas Authors' Club.

On hearing me read the prize poem, one of my Topeka friends became rather facetious. "Pugh has an ideal life," he said. "He produces potatoes in summer and poetry in winter."

Though it is true that I do the bulk of my writing in the winter, I do not care to be known as a poet. I have something else to do in the winter besides writing verse.

How I Cure Meat

ALMOST every farmer knows just about how he likes his smoked meat cured so as to give it the special flavor that suits the family palate. But the keeping of this meat into the summer and the next autumn, without having a great deal of it spoil by becoming rancid, is a different problem.

I have tried several different methods, and have decided that the most satisfactory one consists in taking the meat out of the smokehouse as soon as it is cool. I then wrap it in heavy paper and bury it in salt. It is necessary to have a stone jar or a chest in which to store the meat, so as to keep out the rats and mice. About two inches of salt should be spread on the bottom of the container, and the meat packed with plenty of salt all about it, with at least two inches over the top. I have taken meat out in November that was packed in February, and have found the flavor unimpaired and with absolutely no trace of mold.

The essentials of this process consist in wrapping the meat so the paper will prevent the salt coming in direct contact with the meat, and in getting enough salt about the meat to keep the moisture content and temperature as nearly normal as possible. When meat is packed in this manner it comes out with just about the same firmness that it had when put into the salt.

I also have tried hanging meat in smokehouses, and wrapping it and storing it in the wheat and oats bin. These methods are fairly satisfactory, but the meat generally must be rather freely trimmed of mold when taken out, and it is quite frequently very hard, and sometimes rather strong. Any grade of cheap salt will do.

C. T. CONKLIN, Ohio State University.

Mr. Pugh is right on deck when any of the important operations take place on his farm in Shawnee County, Kansas. Here he is with some of the young hands who helped him dig his last year's potato crop

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Waste in Industry

[CONTINUED FROM PAGE 1]

at $600,000,000, it should be relatively easy to save three quarters of a million dollars a day, an increase of 40 per cent in effectiveness!

A similar conservative estimate for the metal trades places the value of increased production possible in that industry at over half a billion dollars annually—in normal times. At present the waste is nearer a billion dollars a year.

The amount of normal idleness or unemployment in industry can only be estimated. There is no national machinery for collecting the facts. But in the best years, even the phenomenal years of 1917 and 1918, at the climax of war-time industrial activities, when plants were working to capacity and when unemployment reached the lowest point in the past twenty years, there was a margin of unemployment amounting to more than a million men. Apparently one or more out of every forty wage earners are always out of work.

> IT IS better for a man to spend his whole life pounding sand in a rat hole (if that's what he wants to do), than to spend his life in contemplation of the uselessness of pounding sand in a rat hole. G. M.

THE estimate of one out of forty persons constantly unemployed does not cover seasonal unemployment. Practically all industries are seasonal in a sense. The clothing worker is idle about 31 per cent of the year; the average shoemaker spends only 65 per cent of his time at work; the building-trade workman is employed only about 190 days in the year, or approximately 63 per cent of his time; the textile industry has regular intervals of slack time; and during the past thirty years bituminous coal miners were idle an average of ninety-three possible *working* days per year.

The Committee on Elimination of Waste says it isn't interested in blaming anybody for these conditions, but it is interested in pointing out what has to be done to eliminate waste, and who has got to do it. This is the important part of the report from the farmers' point of view. The engineers find that more than 50 per cent of the responsibility rests on management, and less than 25 per cent on labor!

If the farmers' organizations are going to pattern themselves on industrial organizations, it is up to them to understand fully what this report means. One hundred per cent, or no waste at all, was not a theoretical standard, but was the standard of "best practice" already attained by the best run plants. But the report shows conclusively that the general run of industry lags far behind the leaders, mostly because of *inferior management*. The result is that industry is using only a little more than half of their man-power, plant, and machine-power, and is wasting the rest.

Is this also true of you, on your farm? and of farming generally?

What about labor? Labor has its share of responsibility, too. Although more than 50 per cent of the responsibility for waste elimination rests on management and less than 25 per cent on labor, that "less than 25 per cent" is important. Many restrictions by labor are burdensome and wasteful. In the building trades, for instance, some painters' unions do not permit the use of a brush wider than 4½ inches for oil paint, although for certain classes of work a wider brush is more economical. Plumbers and steamfitters' unions prohibit the use of bicycles and vehicles of all sorts during working hours. Members of those unions in some sections of the country demand that all pipe up to two inches shall be cut and threaded on the job.

Carpenters' helpers are prohibited from using carpenter tools, requiring carpenters to do such work as stripping forms from concrete. Experience shows that helpers can do this more economically, and as well. Brick masons insist on washing down and pointing brick work when laborers could do it more economically.

A union rule in newspaper printing requires that all advertising matter coming into the plant in electrotype form must be reset by the compositors. This useless duplication of work is sometimes done weeks after the advertisement has been printed and has appeared in the paper.

But in spite of these and other similarly wasteful practices for which organized or unorganized labor must be held accountable, the committee finds that management must assume the much heavier load in eliminating waste. The engineers hold that 75 per cent of the responsibility rests on management in the men's ready-made clothing industry, 65 per cent in the building industry, 63 per cent in printing, 73 per cent in boot and shoe manufacturing; 81 per cent in the metal trades, and 50 per cent in textile manufacturing, an average responsibility of about 68 per cent attributable to management.

ONE of the ways by which average management is to be educated to a sense of its responsibility and opportunity is through trade associations, and this part of the report has a vital message for farmers. As Herbert Hoover said, in outlining the work of the Committee on Elimination of Waste in Industry:

"A profound development in our economic system, apart from control of capital and service, during the last score of years has been the great growth and consolidation of voluntary local or national associations. These associations represent great economic groups of common purpose, and are quite apart from the great voluntary groups created solely for public service.

"We have the growth of great employers' associations, great farmers' associa-

It Costs Us Too Much to Live, But It's Our Own Fault

IT IS easy and comforting for us individuals to rise up once in a while and let out a terrific yelp about waste in government. It is always easy and comforting to wax indignant about the other fellow's shortcomings; and government is one of the most convenient "other fellows" at our command.

Not that government doesn't deserve the condemnation. There are few more stupid and less efficient things in the world than organized government, and our present Congress has been working overtime at both those things.

But the point is, that there is such a staggering amount of waste in our private businesses, industry and agriculture, that we must wipe *it* out before we can consistently howl about waste in government, which is merely the representative of private citizens and businesses.

The article on this page tells how business men, investigating their own affairs, have found that, by eliminating waste of effort, labor, materials, and opportunity, clothing costs could probably be reduced about half. They also show that similar savings could be made in other lines.

Agriculture should investigate its own production and marketing methods in the same way. This, and this only, is the true solution of the high cost of living, in so far as producers, manufacturers, and distributors can do anything about it. THE EDITOR.

tions, great merchants' associations, great bankers' associations, great labor associations—all economic groups, striving by political agitation, propaganda, and other measures to advance group interest. . . . And to me the one question of the successful development of our economic system rests upon whether we can turn the aspect of these great national associations towards coördination with each other in the solution of national economic problems."

The committee recommends the formation of trade associations in those industries lacking comprehensive organization, but it lays special emphasis on the necessity for these associations to take up programs for the standardization of cost-accounting methods, the introduction of standardized material specifications, the establishment of production standards in their industries, and the standardization of equipment and of finished products.

Some of these recommendations do not apply to farmers' organizations, but many of them do. And as the farmers' organizations enter the larger fields of coöperative production and buying and selling, it becomes a vital matter to them what lessons they learn from industry. The engineers' report gives ample evidence that there is much that is good, but also that there is much that is thoroughly bad, in industry to-day.

The opportunity of the American farmer to-day is to begin where many industrial leaders leave off. His coöperative organizations can profit enormously by the experience of industry, and need not be burdened with the mistakes of industry. They begin with what is practically a clean slate. The first thing that is necessary is a study of waste in the methods of distribution equally keen and unbiased as the waste in production.

The engineers find production about 40 per cent wasteful. But what is the waste in distribution? Where is that waste? Why does it cost the public $150,000,000 for oranges for which the California growers received only $75,000,000?

This is something for every individual farmer, and his farm bureau, to think about.

Not a High Flyer

ONE of our new men went down-town the other day to get a little something to observe Labor Day with. Asked what he'd like, he replied that a little good old squirrel whisky would do.

"I'm all out of squirrel whisky, but here's some Old Crow."

"Yudas Priest!" exclaimed Eric. "I do not want to fly; I joost want to hop around a little!" *The Seabrooker.*

If You Hit the Hunting Trail

[CONTINUED FROM PAGE 4]

by 7½ inches wide, marking the oval out with a black expressman's chalk on the slab. Two of them are needed for each stool. To make the halves fit, file with a rough rasp file, such as is used for shoeing horses. The cork crumbles easily, and after sawing out of the slab with a keyhole saw, and facing the surfaces, they are pinned together with wooden dowels and then the body shaped with the file. The heads are made of soft pine, 1¾ inches dressed, and pinned on with a maple dowel going clear through the body.

We use flat paint, no gloss; for dull-finished birds bring in the shots. Eight females to four males is a good selection. Balance with a slab of lead let into a shallow slot in the bottom of the body. Anchor off your point, with line enough for them to visit naturally, and upend a few of them, for whoever saw a flock of ducks that was not feeding! Of course, even light cork decoys are too heavy and bulky to tote into the woods. We have tried the folding paper ones, but without much success, for if even a small sea gets up they swamp. As a rule, most ducks in camp are shot by creeping up on them when unwarily swimming off some point within gunshot, or else by jumping them in the backwater slews.

As for fox, and there are plenty of them, a good rabbit-proof coonhound is the whole story. Get the dog on a fresh trail and find a good shooting point, as you judge from the course of the chase.

Try a full hunting camp some season. My word for it, it will end as ours do—everybody happy, every man his deer, plenty of grouse and buns for the mulligan, and old Ab with enough bear grease to ease his "rheumatiz" for many a winter month to come.

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OUR 1922 reduced prices on farm machines have just been issued and are effective immediately. They apply on practically our entire line of International Harvester grain, hay, and corn harvesting machines, plows, tillage implements, seeding machines, etc.

In determining these prices, the Company has made a careful study of market and labor conditions and has based the price reductions on the lowest possible raw material and production costs that can, under most favorable conditions, be forecast for the season of 1922.

At the new prices, a grain binder can be bought for $50 to $60 less than the price of January 1, 1921; and other reductions are in proportion.

At these prices no farmer can afford to postpone the purchase of needed machines, especially if his present equipment will not stand up under the work of another planting and harvest.

An old corn planter may crack enough kernels and miss enough hills to make its use mighty expensive. A new planter will save much of its cost the first season. The same is true of a drill. Your old binder may lose grain enough in one harvest to make a substantial payment on a new machine. The new machine will go on for many years, saving a large amount for you each year.

Economy consists not in getting along with worn-out machines *but in farming with efficient machines.*

You will of course continue with that part of your present equipment which is in good order and satisfactory. But it is good judgment now as always to abandon those machines which are really worn-out. Where repairs have been made again and again, beyond the point of serviceability, waste and loss are pretty sure to follow. Present prices will enable you to replace the old with efficient, modern machines. As Mr. J. R. Howard, President of the American Farm Bureau Federation, has said, "The farmer who needs additional machinery and equipment pays for it whether he buys it or not."

If you are at present interested in learning some of the new prices, or in looking over any individual machine, the International Dealer in your vicinity is at your service.

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"Books That Have Helped Me"

[CONTINUED FROM PAGE 8]

periodicals furnish all the general and specific reading matter most farmers care for."

The point is made especially that whereas most books treat subjects in a general way, so that they are not applicable to different sections, articles in farm journals are designed for certain districts, and to a certain extent this is true.

However, there is another side to the argument, and it has plenty of enthusiastic, convincing supporters, as the following quotations from a few of the letters will show:

"PERSONALLY I do not think farmers learn to farm by reading books, but certainly they do *learn to be better farmers* by reading books, and the books are of aid and assistance in proportion to the individual ability of the reader to get hold of the subject matter. Some people do not derive much value from books because their education is too limited; others try earnestly, but are unable to make the printed word their own."

"'An ounce of experience is worth a ton of theory' I have heard many times, but I have found it possible to gather from selective reading some tons of the experience of others that helps to correct my few ounces of theory."

"It has been my misfortune not to own a farm library, neither have I had access to any. I have felt very keenly at times the need of standard books on agriculture. I sincerely wish that every boy and girl could have daily access to a first-class farm library."

"Books have played a large part in my agricultural education, yet I cannot make a list of those that have been of any great help; those on chemistry, botany, and fruit-growing, and farm papers and agricultural bulletins, all have contributed. The reading, searching, thinking habit is what counts."

One man who knows how to make use of books, although lack of time has prevented extensive reading, justifies his choice of several straight textbooks on the ground that "entirely too little is known about the crude materials with which the farmer has to work—that is, by himself. I believe that the underlying principles of all successful operation of farm, orchard, or ranch is a full knowledge of the fundamentals of the business, which are unfortunately too little known. Everyone expects a man without previous training in business to fail if he embarks in mercantile life, and often the expectation is realized. But every man is expected to make good in farming, stock-raising, or trucking, if he really works at it, even if he knows nothing of the elements of success. But, actually, they as often fail as the merchants, only the failures do not get into the papers and the courts."

AND finally there is the message from the man who has not made use of books, but who has come to realize what they might have meant to him—a message that is not without its pathos, but that is even more worth while because of the excellence of its advice:

"I am not sure that I have made a success," he says (but I am inclined to discount this as a result of modesty). "I have not made use of standard books on farming. When I began to farm there were no books, as far as I know. No bulletins, no agricultural schools, only a few farm papers. I went on a Northern farm in Wayne County, New York, for a while, to learn what I could, and that did me good. I have since then only had time to read farm papers bearing on the work I was doing. In this way and by visiting farms that were doing something, and by studying my own farm and conditions, have I succeeded reasonably well.

"I am sure books would have helped me very much, and I would not have made so many blunders. But it is too late now for me to profit by them. However, my sons are taking my place. They are college graduates, and they ought to be better farmers than I have been. They should profit by my mistakes and my successes. It all comes down to this—a boy must love farm work in order to take an interest in it. He must *know*. And he must have the energy to apply his knowledge."

That, after all, is the final answer: A farmer *must know*, and must be able to apply his knowledge. If he can obtain that knowledge economically through experience, well and good; if he can get it from college, from bulletins, from farm papers, from his neighbors, let him do so and make the most of every such opportunity that is offered him. But, after all, if it is necessary that he start at the bottom, whether of agriculture as a whole or of any special phase of it, and if he must learn the fundamental principles, then, it seems to me, there is no safer, no more reliable source of the vital, basic truths than the best of the many books that have been written since farming became recognized as a true combination of science and art. Whereupon the main problem narrows down to the choosing of the right books.

TO a considerable extent the solution of that problem is an individual task for every farmer and every farmer's son or daughter. But there are some suggestions that can prove of help, no matter what the local conditions or personal requirements—guideposts we might call them. It was some of these guideposts that I was in search of when I sent out my questionnaire about farm books and farm reading, and I discovered a number in the replies that came to me. It is another sort of guidepost that I hope to erect for FARM AND FIRESIDE readers, when, next month, I describe some suggestive "typical farm libraries"—that is, some collections of the best books that I know of, or have been able to locate, on different phases of farming. I purpose to arrange them in groups, so that any member of any farm family will be able to locate a few works that can prove of really practical, permanent help to him or to her. Taken all together, for the person who wants to "read up" on the whole subject of agriculture, the little libraries will, I hope, make up a compact, complete reading course for farm families.

What Do Your Children Read?

REMEMBER what a great time you had as a youngster reading Huckleberry Finn, Treasure Island, The Arabian Nights, Mother Goose, Grimm's Fairy Tales, and other books that appeal to children as well as grown-ups? Of course you do!

If you have children, you naturally want them to get the habit of reading wholesome, enjoyable books. Children will take to good books of their own accord, if the books are available.

How to separate the grain from the chaff is the problem. With this in mind, a group of book sellers, together with the American Library Association and the Boy Scouts of America, have set November 13th to 19th as Children's Book Week, to get people to think about children's reading.

An excellent thing to follow in choosing books for children is a catalogue called "The Book Shelf for Boys and Girls." A copy will be mailed you if you will send five cents, and address Book Editor, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

THE EDITOR.

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Doc Delaney Says

[CONTINUED FROM PAGE 11]

hand and a shotgun in the other, but now he just snaps the light on the porch and there is one of the neighbors coming over for a quiet little game.

And when a farmer wanted to take a bath the famly got pale. His wife would get the washpan and a rag, or maybe if they was a rich famly, and took good care of their money, they would have a sponge and the wife would hang her apron over the window in the kitchen and the famly would be warned to keep out, or they would wish they had, and then he would bring in a chair to put his trousers on, and you could hear him grunting as if he was trying to get a wagon wheel out of a culvert.

Then after a while he would come into the setting-room looking excited, and walking on his heels and saying, "Where in thunder is my clean socks?" Then everybody would know that Pa had had a bath. But now a bath don't upset the famly no more than the weather vane turning. When Pa wants a bath now he asks Ma if they have had a fire this after., and goes up to the bathroom and turns on the elec. light, and when he comes out he has on slippers and a smoking jacket.

PEOPLE don't realize how times has changed, unless they have been a practicing vet and kept their eyes open, and know something besides the present and what is going to happen to Col. Harvey if he gets started talking again, because in them days when a farmer wanted to go to town it was a big occasion, and the nite before he went to bed an hr. early, and unless he was good and tired he wouldn't sleep for excitement.

Then they put the spring seat on the wagon and a chair with a quilt in the back for Gran'ma, and started for town; and the dog would look like he never expected to see a human face again. The groceryman would welcome them like they had been to the North Pole or some foreign spot, and then they would go in and eat lunch, setting around the stove, and if the groceryman give them some broken crackers they thought wouldn't it be nice to live in the city all the time? Now after supper the farmer has the hired hand drive the car around to the front and, getting his wife, they spin down to the movies, drop in to the ice-cream parlor to cool off, read the baseball scores, buy a c'ple of new records, and then spin home again.

In them days that I speak of in my writings the farmer had to do his own butchering, and scrape the hair off himself, and it was some job, and aspecially if the water wasn't hot enough or maybe the barrel upset, or maybe he would get the animal up on the gambrel and it broke, and besides there was the cracklings to fry down and soap to make and the hams to smoke, and you got to be a fireman and fight smoke till you think you can't possibly ever use your lungs again or the meat will go bad on you, besides salting the pigs' knuckles down in brine. But it is different to-day. Now when the farmer wants to lay in his winter's meat he puts an old bed quilt in the back of his car and goes down to town and gets it off a hook.

IN THEM days the hired hand had to work, and when he asked the boss for the last Sundy in the month off the boss would look at him in astonishment, and want to know if he had been going around bareheaded lately, besides hadn't he promised him all day on the Fourth, whether the hay was in or not?

Now the hired man has it the easiest of all. It used to be that the farmer thought he was being mighty easy on him when he let him have the mare to ride to town if he promised he wouldn't trot her down-hill, and now if a farmer offered him a work horse to ride to town he would laugh like he was at the movies, because now the hired man has his own car, and when he gets home he ain't got to toss around on his bed for a couple of hrs. wondering where the tax money is coming from. Now if he don't get off Saturday after. he raises a holler till you would think he was being beat with a crowbar, and he has a room to himself with running water and tar bags to keep his Palm Beach suit in, and now when he gets out on the street the boss looks like he might be his showfer.

There will be ups and downs for the farmers like the present or the latter where a farmer has got to strike oil or something to continue the same, but that is only temporary. Twenty-five yrs. from now the farmer will be better off than he is now, and will look back and think when they had only one bathrm. in a house it was about like living with the hogs.

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Rhubarb Pie in January!

By Jessie G. Adee of Kansas

LOTS of the farmers store their fruit on their cellar shelves, but not the Farman brothers of Manhattan, Kansas; they grow theirs there.

People who like rhubarb pie always find it hard to wait until spring comes. The Farman brothers don't wait; when they get hungry for pie they go down cellar and cut a bunch of rhubarb.

"Rhubarb will grow in any cellar," Clyde Farman told me, "if the temperature is kept about 60° F. We use two-year-old roots—that is, we divide the roots, leaving at least one eye in a piece; then let them grow at least two years without disturbing them. We let them lie dormant until just before the ground freezes in the fall, then dig them up and let them lie on the ground until they freeze solid. Freezing seems to increase their productivity. Then they are placed in a dark cellar, either on the floor or on shelves, and covered lightly with earth. With an occasional watering and by keeping the temperature at about 60°, the stalks will be ready for cutting in about four weeks. A two-year-old root will produce four to five pounds of stalks; one four or five years old will produce six or seven pounds.

"The stalks are more tender and more delicate in flavor than when grown in the open ground; the leaves are smaller, and the stalk a more attractive red. The first year we heated our rhubarb house with oil stoves, but now we use a home-made heater. We made our first shipment this year the last week in January, and in five weeks had sold over two tons.

What the Farman brothers are doing for market is so simple that any farm family which has a warm cellar can put away a few roots and have fresh rhubarb in January.

Here we see Mr. Farman gathering rhubarb in his cellar in the winter

EDITOR'S NOTE. Questions about winter gardening, greenhouses, hotbeds, care of fruit trees, etc., are welcomed, and will receive the careful attention of our horticultural expert, Mr. F. F. Rockwell.

Is It Worth Your While?

[CONTINUED FROM PAGE 5]

in the inn, and about the table in the Saddle and Sirloin Club in the Livestock Record Building, are not duplicated elsewhere in America. It is a wonderful opportunity for an exchange of ideas, to compare notes, and to add to one's intimate knowledge of what is taking place in the animal husbandry field. Recognizing the importance of these gatherings, numerous breed associations hold their annual meetings during exposition week, when much important business is transacted. In 1920 over thirty livestock associations had meetings scheduled during the International. These brought together men who transacted much business of vital importance to our livestock interests.

ANOTHER evidence of the influence of the International is to be found in the attendance of students from our agricultural colleges. Each year these bright, ambitious young chaps come to Chicago in veritable droves from all points of the compass, and even from far-away Texas and North Dakota. On the opening day, Saturday, comes the students' livestock judging contest, with many teams participating. Many of the boys who go to the show are scarcely able to meet the expense attending it, but I have yet to meet a student who was not enthusiastic over what he had seen and heard, and who counted the International visit as one of the great experiences of his life.

It will be impossible to measure the value of the inspiration many of these college boys have taken back home and applied to their daily living on the farm. After twenty years, some of the most noted breeders and feeders in our American livestock life were boys at the International.

The small army of breeders and feeders, and of college boys, certainly have scattered the seeds of better breeding and feeding in their communities than was ever the case before. Evidence of this is seen in the exhibits made by boys and girls in the junior livestock feeding contests. For some years boys and girls ranging from ten to nineteen years of age have brought fat cattle, wethers, and barrows to the International, and have made very impressive exhibits.

In the Class A feeding contest in steer-feeding in 1920, there were thirty-three boys and girls entered for showing fat cattle from Iowa, Missouri, Illinois, Indiana, Michigan, and South Dakota. One may be morally certain that the experiences of these young people bore a rich harvest of inspiration for the benefit of the folks back home, if nothing more. The most hopeful sign associated with the future of livestock husbandry in America is the keen interest that is being taken by the young people in these boys' and girls' clubs.

I am asked the question if the International has another side, where influences are at work that are detrimental to our livestock interests? Every great agricultural fair and show is subject to more or less criticism. This, as a rule, relates to details of management. The great lessons of the show are quite another matter.

Every institution of this sort may be improved, and all successful ones, in fact, grow through a gradual change for the better. But the International is in the hands of a group of strong men, and, in spite of any criticisms which may have been made, it has well justified its existence.

It may seriously be questioned if the International could have held its own without the financial backing of the great moneyed interests at the stockyards. It is most logically located at the gateway of the greatest livestock market of the world, and I feel sure that American stockmen have it in their power to influence the management of the International to make it everything the most reasonable critic could desire. Rich in the association of almost twenty years, its influence and value would naturally increase with the passage of time into far-reaching possibilities.

What Coöperative Shipping Did for Them

"GIVE me that blank," said James M. Hively of Hardin County, Ohio, when he was asked to join the local farm bureau at $10 a year. "One calf sold through our shipping association, which was organized with the farm bureau's assistance, contributed most of this ten. Local buyers offered me 12 cents a pound for him. I consigned through the association and got 18 cents. As he weighed more than 200 pounds, I made a little money on the deal."

Scott Wilcox, another Hardin County farmer, is a strong booster for the shipping association. He brought to a buyer a little bunch of hogs for which the dealer offered only six cents a pound on the plea that they would have to go as roughs. Through the association he received 12½ cents, nearly doubling the buyer's price after expenses were paid.

Shipping association members find that this marketing plan is especially profitable on odd-grade and thin stock. With this class of stuff the buyers are likely to take advantage of the shipper to make themselves an extra profit, or to protect themselves when they are doubtful as to how the animals will be graded at the stockyards. WHEELER MCMILLEN, Ohio.

Annual production of milk in United States, 88,000,000 pounds, of which 41½ per cent is used as fresh milk, 36 per cent is converted into butter, and 4½ per cent into cheese.

Why We Like Hardy Lilies

HUSBAND and I have always tried to make the grounds around our home as attractive as possible. At various times we have planted many different things—annuals, hardy perennials, and shrubs. We have learned, through many bitter disappointments, that there are many things recommended in the catalogues which no farmer should bother with. They may be beautiful enough, but the man with crops and stock to attend to simply won't have time to give them the attention they demand. But not so with the hardy lilies; these make an ideal busy farmer's flower.

First, you can plant them at any time up to the end of November, when the rush of fall work is past.

Second, they will keep on blooming from year to year with practically no attention. Some of them, such as the well-known tiger lily, will hold their own, even though entirely neglected, against practically any weed or grass. This is true also of the Canadian or yellow bell lilies. With all the others, the only care needed is to hoe around them lightly once or twice in the spring after the mulch is removed, to keep the weeds from getting a start. After that they will look out for themselves.

There is one important thing to guard against in planting lilies, especially in heavy or wet soils, and that is possible rotting of the bulbs. Putting three or four handfuls of sand under each bulb, when planting, will prevent this, even in quite heavy soils.

The hardy lilies should be planted much deeper than tulips or hyacinths—six inches or more, deeper in light soil than in heavy. I usually get some old manure out of last spring's hotbed, to mix in the soil where they will be planted. Fresh manure is liable to cause decay.

While no mulching is required to protect hardy lilies from freezing, I like to cover the bed with several inches of stable manure *after* it has frozen hard on the surface. This mulch keeps the surface frozen and prevents water from melted snow and ice getting down around the bulbs during the winter and early spring. Most of this mulch should be removed when growth starts.

MRS. ROY KILBURN, Connecticut.

Mr. Rockwell, Corresponding Editor of Farm and Fireside, sent us this picture of Frederick and Donald, his two boys, and a giant gold-banded lily of Japan. Lilium auratum is its scientific name, and it is one of the hardiest and most beautiful flowers you can grow

Books We've Received

Natalie Page, a story by Katharine Haviland Taylor, author of "The Dearest Ache," which appeared in the March, 1921, FARM AND FIRESIDE. Published by George W. Jacobs & Company, Philadelphia, Pa. Price, $1.50.

Modern Farm Buildings, a new and enlarged edition, by Alfred Hopkins, A. A. I. A. Published by Robert M. McBride & Company, New York City. Price, $4.

The Other Susan, a novel by Jennette Lee. Published by Charles Scribner's Sons, 297 Fifth Avenue, New York City. Price, $1.75.

Jim and Peggy at Meadowbrook Farm, a juvenile story of everyday farm life by Walter Collins O'Kane. Published by the Macmillan Company, New York City. Price, $1.

Face to Face with Great Musicians. Intimate word sketches of the world's greatest composers, by Charles D. Isaacson. Published by D. Appleton & Company, New York City. Price, $2.

Stories Editors Buy, and Why, a collection of stories published in American magazines, with notes by the editors telling why. Compiled by Jean Wick. Published by Small, Maynard & Company, Boston, Mass. Price, $2.

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Government figures show that the average consumption of meat foods in the United States during the past five years was 157 pounds per person, or 707 pounds for the average family of 4½ persons.

Our earnings, certified by public accountants and subject to audit by the government, were about five cents a week for the average family.

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Why We Stick to Our Mutual Insurance

By Earl Rogers of Ohio

"THE average life of a mutual fire insurance company is twenty-two years. It has been proved time after time. You folks in the Wood County Mutual had better get into my old-line company before your mutual busts up and you lose all you've paid in for protection."

That's what an old-line insurance agent told me a while ago. He wanted me to drop my mutual policy and take his in place of it. His other argument was that his company had a certain fixed rate that held good no matter what the company's losses were, while some years our mutual might cost us three or four times as much as his regular rate.

Good arguments, I admitted, if true. So I looked into the matter, and this is what I found: Our company was organized in 1894, which makes it a little over the average age. In 1913 the total insurance carried was less than $7,000,000; this year it totals over $9,000,000. It doesn't look as though it were going into bankruptcy very soon, does it?

Why is our company a success when others fail?

First, it was founded because old-line insurance was too expensive for most of us to carry. The present rate, here, of an old-line policy for wind, fire, and lightning is 50 cents a year a hundred; our rate from 1903 to 1912 averaged 19⅔ cents a hundred. For the last three years our rate has averaged just 35 cents, due to higher costs of repair for fire damage, higher cost in officials' time, and an extremely heavy loss from all causes. The highest rate we have ever paid was 45 cents. Even that gives us a margin of profit over the old-line companies. My risk is about $3,000. I will save for the last three years about $13.50 by insuring with the mutual. That gives me free insurance for one year.

Our organization has over 3,200 members—a majority of the Wood County farmers. At the end of a year our secretary mails a statement containing all the losses for the year and the rate we have to pay. Our 45 cents was divided up into: Fire 31½ cents, lightning 2½ cents, wind 7 cents, and operating expense 4 cents.

Our officers include president, treasurer, secretary, and ten directors. All are elected. The secretary runs the business. He is an expert in mathematics, and is strictly on the job. He is paid $750 a year. The others get $4 a day when working, and a mileage fee of five cents. The directors are scattered pretty well over the county, so there is no great distance for anyone to travel.

All the officers are farmers. The secretary operates a fair-sized farm, and handles this work as a side line. If any trouble in adjustment of claims comes up, a board of arbitrators settles it in short order.

One year a little dissatisfaction developed about classification of buildings. Lightning-rodded buildings ought to have a little lower rate, it was thought. A new schedule was arranged which fixed this up satisfactorily.

This company is successful because we do not have any high-priced officials; we don't pay any dividends; we save money every year for every member. Claims are paid within ten days after an adjustment. The whole idea is another way of cutting out a middleman—the insurance agent. And so long as this kind of service can be kept up our mutual will go ahead.

EDITOR'S NOTE
If you have any questions, we will try to answer them.

New Bulletins You Might Like to Read

THE following list consists of bulletins that we believe will be of interest to you in your business or life as a farmer. They can be obtained free, excepting those otherwise marked, by checking the ones you want and mailing this list to your congressman, or to the Division of Publications, U. S. Department of Agriculture, Washington, D. C. It is better to send your request for Farmers' Bulletins to your congressman, because congressmen receive a larger share for distribution than do the other offices. Other bulletins, circulars, etc., can more easily be obtained from the Division of Publications.

THE EDITOR.

Monthly List of Publications. This circular describes all the new publications of the Department of Agriculture. It will be sent regularly to all who ask for it.

Buying Farms with Land-Bank Loans. Bulletin No. 968. This is an extremely interesting study of how federal farm loans are used to buy farms. It will be helpful and suggestive to those who are thinking of taking out a loan. Price, 5 cents; from Government Printing Office.

How to Use Farm Credits. Farmers' Bulletin 593. This is not a new bulletin, but it might be found helpful, in these days of meager farm profits, by those who have need to borrow money.

Northwestern Apple-Packing Houses. Farmers' Bulletin 1204. Details of construction and operation of both private and community-owned apple-packing houses are given. Contains many useful hints for apple growers everywhere.

Freezing Injury to Potatoes When Undercooled. Bulletin No. 916. Although scientific, this bulletin clearly points out how potatoes act under different temperature conditions. Most valuable for the commercial grower, but useful to anyone who stores potatoes. Price, 5 cents; from Government Printing Office.

Tuberculosis of Fowls. Farmers' Bulletin 1200. Poultry T. B. is widely distributed over the United States, and is especially destructive in the North and West. Treatment of affected fowls is useless, but the disease may be stamped out by methods given in this bulletin.

The Green Bug or Spring Grain Aphis. Farmers' Bulletin 1217. This small, soft-bodied plant louse is found in nearly all parts of the United States, and causes millions of dollars' damage, especially in the Mississippi basin. Control methods are given.

Judging Sheep. Farmers' Bulletin 1199. A practical guide for beginners, and helpful also to the experienced sheepman.

Game Laws for 1921. Farmers' Bulletin 1235. You will want to read this before doing any fall hunting. Contains laws for all States.

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Our Fashion Book, which heretofore has been a separate affair, has been incorporated in and made a part of our regular catalog. It has Fashion plates of muffs, neckwear and other fine fur garments; also remodeling and repairing, together with prices and estimates. In ordering catalog, write name and address plain.
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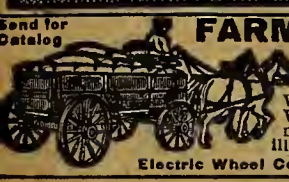

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Mr. Muskrat—A Good Pelt, and Easily Taken

I WELL remember the time I caught my first muskrat. In fact, it was the first real fur bearer I had ever taken. As I looked at the sleek pelt, speculating on its value (I probably received 15 or 20 cents instead of $3, which it would have brought two years ago), I had visions of great wealth to be made on the trap line. Of course, I never did sell quite as many furs as I expected, and so far great wealth has eluded me, but nothing ever gave me quite the thrill that the first muskrat did.

Muskrats are not hard to take. You can succeed, ordinarily, by placing your traps at the foot of slides or in the entrances of dens and houses. When the water is too deep, it is a good plan to build bases for sets of sod or stones. It is easy to scoop out excavations should the spots for sets be too shallow. Stake in deep water whenever it is possible. Better results can be had by having traps covered by two or three inches of water, for the animals are then caught by their longer and stronger hind legs, rather than by the shorter and weaker front ones. Fewer muskrats escape when this precaution is taken.

Most muskrats are trapped during the fall, when they move about freely. Their fur is best during late winter and early spring. Shot and speared skins do not command top values. If possible, get the game with traps.

BAITS are not used to any great extent for this fur bearer. When it is necessary to do so, remember that vegetables are the only attractors, outside of the patent scents, that get results. Parsnips are very effective because of the odor. However, potatoes, carrots, beets, and anything similar will serve. Just place your traps in shallow water, and put the decoys near, in such a way that the muskrats cannot investigate without being caught.

Another good way is to build up mounds along shallow streams so the tops are six or seven inches above the water. Then scoop out excavations for traps, making sure that each pocket holds enough water to cover the set. While it is not necessary to use a decoy, they will often increase your catch. Muskrats passing the mound will climb it, and are almost certain to spring the trap. The fastenings should be made deep in water so as to drown the animals caught.

Most trappers pull up traps as soon as the ice gets strong enough to hold the animals. When the weather is not too cold, one can add many pelts to his collection by putting three or four pounds of coarse salt, in a cloth, under each set. This prevents freezing.

Many other methods will suggest themselves to you when on the line. They can be worked out with a little practice. All in all, muskrat-trapping is not difficult, and even the beginner will take them easily after a few attempts.

GEORGE J. THIESSEN.

I Never Let a Pig

[CONTINUED FROM PAGE 7]

fellow. Take brood sows, for instance—a fellow can't handle all of them just alike, and the same is true with feeders. I have had some bunches that fed out lots better than others, and it puzzled me to tell why. I think one trouble with a lot of fellows is that they try to handle too many sows. I have 80 acres here, and I know that five or six brood sows are about all I can manage and do it right. They bring, on an average, six or seven pigs a year. Last year they averaged only six, but that is poorer than usual. Two litters a year will put several hogs on the farm. I think I might do better if I had a better education. You see, I missed a good deal by quitting school along about the fourth reader."

Mason may have missed something, but I am sure that he has more than made it up by his application, his keenness of perception, and his interest that is born of his natural love for livestock. His neighbors say that he is the best hand with horses in the country. The most striking thing to me was the entire absence of any scurvy, poor-appearing animal of any sort on the farm; they all looked sleek and well cared for.

Mason is a young man, and when his father died, several years ago, he was just married. He rented the home place, having inherited about 20 acres. By careful management and hard work he has been able to buy the other heirs out. The 80 acres are his now, and he is beginning to add to them.

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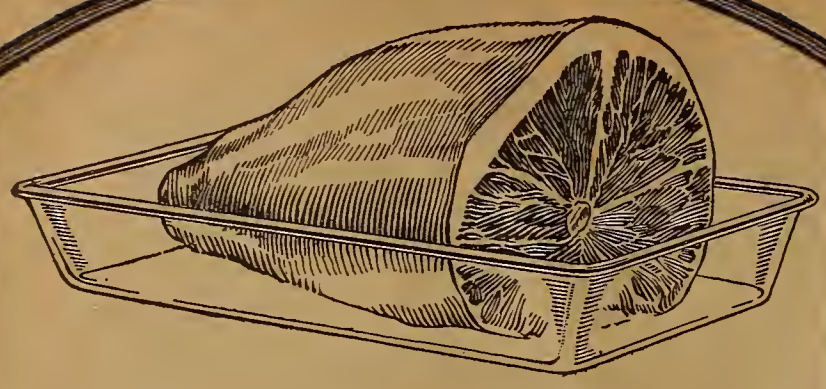

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The Pathfinder, 228 Langdon Sta., Washington, D.C.

The Coffee Hound

[CONTINUED FROM PAGE 3]

is something wrong. I'll bet it's Ludlow, and not the horse. And I know one thing darn certain: if I ever get out of this thing and have a chance to go into some decent business, I'm gonna grab the chance so fast it'll make the world dizzy."

He clenched his fists, braced his shoulders, and swung off down the track in the direction of Tartar Lady's stall. Ludlow, meanwhile, had ducked his head, mumbled something under his breath to the old judge, and shuffled down the steps behind him.

Ludlow, called Poker Bill not so much because of his penchant for poker as for his habit of forgetting to pay poker debts, owned a horse which had won some races at Latonia. When the Latonia spring meeting ended, he had not shipped to Fort Erie with the other stables, but had laid up for a while and then gone barnstorming through Indiana. The racing was easier for Sox Ludlow, and the betting softer for Poker Bill. He shipped out of Muncie for Anderson, therefore, after Sox Ludlow had cut a wide swath among Hoosier horses, and his bank roll had trundled over Hoosier pocketbooks, growing like a snowball going down-hill. He was too clever for the boys, and Sox Ludlow, by Ludlow Boy and Garter, out of Green Hose, was too speedy for the Hoosier bangtails. Ludlow always knew whether to bet on his own horse or another.

ON THE way to Anderson, Ludlow put in two hours building a little strategy. He knew Jimmy Hull would have Tartar Lady entered in the mile run on Thursday, and he had been tipped off that betting would be permitted. Although Tartar Lady had been bred and foaled in Madison County, and Hull was a local boy, he figured the crowd would not make Tartar Lady the favorite, because of the mare's loss at Muncie. But if he could take a chance and lose the first mile to Hull, the crowd would get behind Tartar Lady, the odds on Sox Ludlow would be much longer, and his cleaning on the second mile, or "repeat" as the Hoosiers call it, would be all the sweeter. When he reached Anderson, Poker Bill was in a snug frame of mind.

Jimmy Hull, on the contrary, was downhearted, and when he reached home he sought out Mary Martha for consolation. He saw her for a few stolen minutes, as she sat in her mother's car while Mrs. Amsden was in a store. Mary Martha was at first inclined to scold, but she melted when she saw him in such deep spirits. Her sympathy responded to his tale of bad luck.

"The trouble is," Jimmy said dejectedly, "that this Sox Ludlow is temperamental, or something. I can't imagine what. Sometimes he runs so slow a cow could beat him. Other times he'd outrun any horse in the world, I think."

"That's funny," said Mary Martha.

"But, listen, girl!" exclaimed Jimmy. "This racing may have me down and almost out, but I've still got a kick. I heard about a new machine for farmers to use in place of horses—it pulls the plow, or the harrow, or reaper, or any old thing. Runs a pump or makes electricity, and all that. Some people in Indianapolis are gonna make 'em, and they'll run the farm horses off the farm. I've got a chance to land the Madison County agency for this machine, and, believe me, I'm gonna grab it."

"But, Jimmy, will it work?"

"Work? Sure it will work. One machine does the work of two or four horses, and it don't eat any hay or corn, never has to be curried or bedded down, or nothin'. Just feed it gasoline and oil. Great stuff. No farm complete without one!"

Mrs. Amsden came out of the shop just then, and, sweeping coldly into the car, closed the door abruptly. She absolutely ignored Jimmy and left him standing forlorn, cap in hand, as the car departed down the street.

THURSDAY spells turmoil at the Madison County Fair. Madison is a black-dirt county, and black dirt means corn. Corn, as anybody knows, means money in the farmer's pocket. All the farmers in the county try to get to the fair on Thursday to enjoy spending some of their corn money. They are crowded and jostled by people from the three factory towns in the county, who also have money because they are from good, solid working communities. The fairgrounds hold the crowds, but the fences bulge.

That is to say, the fences bulge until about two o'clock in the afternoon, when everybody on the grounds tries to get into the grandstand, on one of the bleachers, or on the rails of the track. When the races start, there is a tremendous congestion in the center of the grounds, with the outlying attractions completely deserted. The fat stock show, the new-fangled tractors, that took the place of horses on the farm, the tickler, the loop-the-loop, the art exhibit, Mrs. Jessup's salt-water taffy tent—all these lose their power to hold when the magnet of the track begins to pull. The fences stop bulging outward, and the stands and rails begin to groan.

Provident people, of course, get their grandstand seats early, and settle themselves therein long before the first heat of the first race is called, for even when you have reserved seats you never can be sure that you will be able to find them, or keep the crowd out of them. The Amsden family was forehanded. Headed by John James Amsden, they found their seats early, and, except for several exploring expeditions by young John James Amsden, Jr., held on to them firmly, sitting tight until the races should begin.

"Yay, there comes Jimmy," cried John James, Jr., along about 1:30 o'clock. "Hi, Jimmy! How's the race gonna come out?" he asked, jumping up and going down the aisle to meet Jimmy Hull.

APPROACHING the family party, Jimmy took off his cap and put on his grin. He was greeted warmly by Mary Martha, rather coldly by Mrs. Amsden, and in a fairly friendly manner by John James Amsden. To all of them, after Mary Martha, he was equally pleasant, and he chatted for a moment with the group. Then, addressing Mr. Amsden, he said:

"I was wondering, Mr. Amsden, if I could talk to you a minute about a matter."

Mrs. Amsden looked suspicious, but John Amsden replied:

"Why, surely, Jimmy," and rose to go down the aisle with the boy.

"John, before you go," Mrs. Amsden spoke up. Then, as he bent over, she whispered to him: "Don't you dare lend that boy any money or encourage him in any gambling schemes!"

He nodded, and grinned blankly by way of disguising the purpose of her warning. Then he shouldered through the crowd after Jimmy, and down the steps of the grandstand to the grass plot in front of it.

"Mr. Amsden," said Jimmy, "I wanted to get you to do me a favor. No, wait a minute," he laughed, as he saw a faint

cloud of apprehension cross Mr. Amsden's face, "I don't need any money. It's something else. You remember Sammy Montague?"

"Why, yes, I defended him a couple of times when he was up on some kind of gambling charges."

"Well, Sammy is running a book, and taking bets on the races this afternoon. He hangs out under the grandstand, back yonder. Says the police will not bother him."

"He oughtn't be too sure," Mr. Amsden smiled slightly. "Might mean more business for me."

"Here's what I'd like for you to do for me, if you will," resumed Jimmy earnestly. "Sammy will talk to you, but he won't to me. I want to find out, before the running race is called, whether Poker Bill Ludlow is betting on his horse, Sox Ludlow. If he is not, that means he is going to lay down the first mile, and let me win. In that case I'll bet on Tartar Lady to win."

"WHY, uh, Jimmy, you oughtn't gamble like that! Besides, I doubt if Sammy would tell me."

"It wouldn't be gambling—it would be a sure thing," declared Jimmy positively. "And he will tell you. Listen! The odds are six to one on Tartar Lady. There's only a small purse, and I've got to cash in big, and cash in quick. I've got a tip that I can get the county agency for a machine to pull a plow or a harrow. Takes the place of a horse, and you feed it gasoline. I'll know how to race against him if I can find out about his betting. Could you let me know? It means a lot to me, Mr. Amsden. It will be a *gold mine*. But I've got to talk turkey to-morrow. It's my chance to get out of this business and into something permanent."

"That's fine, Jimmy. I'll back you in that, if you like. I might be able—"

"I'd rather you didn't, Mr. Amsden. You see how it would be, on account of Mrs. Amsden. And then, on account of Mary Martha, too. Besides, I can do this thing if you'll just get that one piece of information for me. Won't you? If I could only see what makes that horse so good in spots! If Ludlow's not betting, his horse will be no good. If he is betting, the horse will run like a watch."

"Well, I, uh, I reckon I can," agreed John James Amsden, knowing that he was being swept off his judicial feet. "I like your enthusiasm, boy. Maybe I can help you."

"Fine!" exclaimed Jimmy. "I knew you would in a pinch. Would you find out about four o'clock, and send me word by somebody?"

Mr. Amsden nodded. With that, Jimmy took a short survey of the space beneath the grandstand, to show Mr. Amsden where Sammy Montague hung out. Then he made off for the stables, across the grounds, and Mr. Amsden went up-stairs to rejoin his family. To forestall questions from Mrs. Amsden, who, he easily divined, was suspicious, Mr. Amsden rejoined the group beaming with enthusiasm.

"WELL, well, there's good news!" he declared, rubbing his hands. "Jimmy was telling me he has a chance to get the county agency for a new machine to replace horses on a farm, and asking my advice about it."

"What did you tell him, Dad?" exclaimed Mary Martha.

"Gosh, then he can gimme a job!" declared John James, Jr.

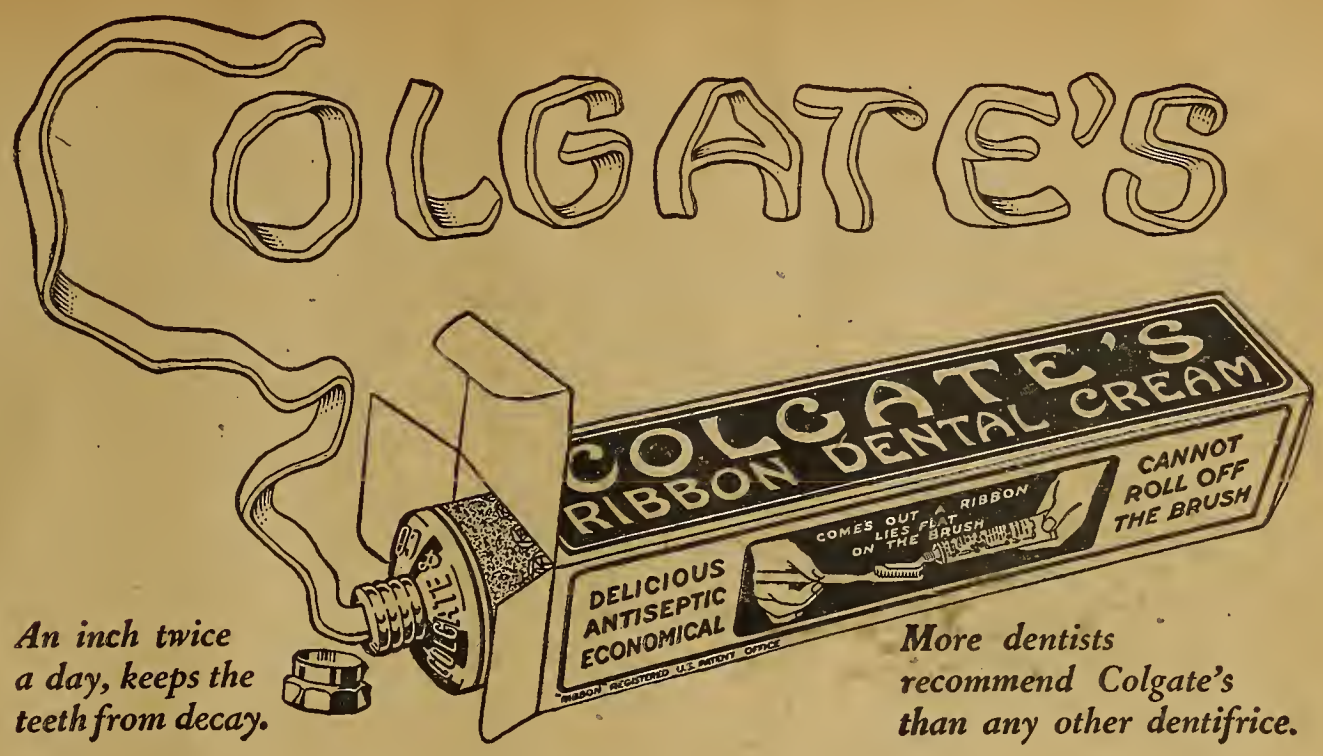
"Son, be quiet!" admonished Mrs. Amsden. "That will certainly be better than this racing business."

"Oh, I don't know," Mr. Amsden replied. "Racing is not so bad, provided a fellow does it honestly, and for all he is worth. But this business will be a gold mine for him," he added.

"Those machines are such a nuisance," Mrs. Amsden said, in a cold, disdainful tone. "Noisy, and all that."

"Jimmy told me Sunday he was going to try for that agency," said Mary Martha. "And I *do* hope he can land it."

The first heat of the free-for-all pace started just then, and Mr. Amsden relaxed, thankful that thus far Mrs. Amsden had not pursued her suspicions regarding his talk with Jimmy. About four o'clock, after several heats of various races had been run, Mr. Amsden stood up, stretched his legs, and announced he thought he would go for a little stroll. He thought,



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This special offer makes it possible for you to prove on your own stove that "Wear-Ever" utensils—made of hard, thick, cold-rolled sheet aluminum—are most satisfactory and economical.

Send coupon for this "Wear-Ever" stew pan today. If you also wish to give a friend a serviceable Christmas present—mail 40c for each pan desired (or 60c for pan and cover).

Look for the "Wear-Ever" trade mark on the bottom of each utensil.
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too, he would take John James, Jr., with him. Down-stairs he went. At the bottom of the steps he dispatched John James, Jr., with a dime, to buy some salt-water taffy of Mrs. Jessup. Meanwhile, he strolled in and interviewed Sammy Montague, who, recognizing Mr. Amsden as one who had been a friend in need, gladly vouchsafed the information that Poker Bill Ludlow was not betting a solitary nickel. Very thoughtfully, Mr. Amsden strolled back to meet John James, Jr.

"John James," he said plainly, "you run across the grounds to Jimmy's stall, and tell him I said there is nothing doing with Ludlow. Understand that? Nothing doing with Ludlow. And listen, John James," putting his hand in his pocket, and winking at the boy very gravely, "I don't think it will be necessary to say anything to the folks. If it is," giving his son a quarter, "I'll say it."

"I'm on, Dad," replied John James, Jr., impudently returning a wink, and then darting off through the crowd.

JOHN JAMES AMSDEN, SR., his duty thus done, started up the steps of the grandstand thinking hard. Halfway up he stopped, turned around, and then went back down again, to seek out Sammy Montague. Without passing any money, he told Sammy cautiously he wanted to bet twenty-five dollars on Tartar Lady.

"Consider it bet," said Sam smartly. "That'll get you a hundred and fifty if she wins." He made a notation and gave Mr. Amsden a slip of white paper with some rough scrawls on it. The lawyer then went back into the grandstand and rejoined his family.

Jimmy Hull, over across the track in the stalls with Tartar Lady and his little colored jockey, Tobe Harter, was beginning to get nervous at four o'clock, for fear Mr. Amsden would either forget his promise or fail to find a messenger. At four-ten he forgot his worries, for John James, Jr., came into sight on the gallop.

"Yay, Jimmy," he yelled. "Listen, Dad told me to tell you, to tell you—wait a minute till I get my breath." He jerked off his cap to fan himself. "Dad said to tell you 'nothing doing with Ludlow.'"

"Sure that's what he said?" asked Jimmy.

"Sure'n certain."

"Fine. Say, wait a minute. Tobe," he called into the stall. A bow-legged little yellow darky appeared. "Listen, Tobe, I wish you'd take a stroll down along the stalls, and see if Ludlow is hanging around his place. Will you?"

"Sut'nly, Boss," replied Tobe, dropping a sponge and starting out.

"John James, I want to get you to do something for me, when he comes back, will you?"

"Cert'nly," replied the boy. "That is, what's in it for me?"

"A quarter if you do it," said Jimmy, laughing at the youngster's air, "and another quarter next Sunday afternoon if up to that time you have not said a word about it. Are you on?"

"Surest thing you know. And say, first Dad and then you—it cert'nly pays to keep still."

"Wait a minute," said Jimmy, scribbling on a piece of paper.

BUT there was not a minute to wait. Tobe was back in thirty seconds, coming on the dead run, his tongue hanging out and the whites of his eyes showing bright with fear.

"Whuf!" he panted, "Whoosh whew—'

"Was he there?" Jimmy asked.

"Ast me waz he theah? Ast me?" answered Tobe, plumping down on a bale of hay and gasping for breath.

"Take your time—tell me what you saw."

"Ah's walkin' 'long easy, lookin' in th' doahs o' th' stalls. Out he pops," Tobe ducked his head in recollection, "and makes a swipe at me with a piece o' strap. 'Git outa' heah, Nigguh,' he yells at me. 'Beat it. Ain't nothin' 'n none o' them drug stoahs kill yo' quickuh'n whut Ah will.'"

Tobe paused for breath again, then resumed:

"Ah knows some o' them things, 'n drug stoahs sut'nly will send yo' 'long home. An' b'lieve me, Boss, Ah come right away f'm theah."

Jimmy laughed long and loud at Tobe's

[CONTINUED ON PAGE 28]

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From the oldest chest in the attic came hoop skirts, pantalettes, and wing collars to grace the party

An Old-Fashioned Party

By Emily Rose Burt

SO MANY parties nowadays seem to be planned for young folks only, that a party which the older people can enjoy may not come amiss. The invitations may read in this manner:

Twenty-year endowments
We hear of every day;
They're always in the future.
Let's look the other way—
Twenty years behind us,
And maybe twenty more,
And practice all the pleasures
We liked so much of yore.

(*Important Note:* Wear old-time costume.)

The collection of costumes is the first amusing feature; the ladies will be wearing hoopskirts and tiny pancake hats or scoop bonnets, and the men will have the most antiquated cut to coat and trousers and the quaintest style of hat brims, for all the costumes should as far as possible come out of attics. Those who wish may dress in little girl or boy clothes that belonged to their grandmothers or grandfathers.

The next amusing feature will be the showing of daguerreotypes. In an oval opening, large enough to hold a person, appear in succession, one after another, characters from a bygone age, and as each is exhibited someone reads aloud what purports to be the name and age of the daguerreotype subject. Thus:

"Aunt Mary Watkins at the age of twenty-one."

"Grandma Brown the day she entered the female seminary."

"Uncle Ben and Aunt Hetty on their wedding day."

ANOTHER very entertaining feature is illustrating some of the old songs by means of tableaux in the frame. For instance, a chosen quartet may sing "Sweet Alice, Ben Bolt," while Sweet Alice herself, in costume, smiles demurely out at the audience.

"Jaunita," "Robin Adair," "Aunt Dinah's Quilting Party," and many of the other tunes in any book of old songs will illustrate delightfully.

The most fun will come in the playing of the games of yesteryear.

Imagine a crowd of fifty- and sixty-year-olds playing "Miss Jennia Jones." One player, as you know, represents the mother; another, Miss Jennia, the daughter. The rest join hands and advance, chanting:

"We've come to see Miss Jennia Jones,
Miss Jennia Jones, Miss Jennia Jones;
We've come to see Miss Jennia Jones,
And how is she to-day?"

(Tune: "Mulberry Bush.")

The mother announces that Miss Jennia is washing; so it goes through verse after verse.

Shouting Proverbs used to be one of the favorites at parties. While one person leaves the room, the others decide on a proverb for him to guess. Then each person is portioned out a word with instructions to shout it loudly when the guesser enters. All the word holders shout at once, and the poor puzzled guesser seeks to distinguish enough to enable him to piece the complete proverb.

Copenhagen is another old and popular game. All the players but one, who stands in the center, form a circle with hands on a rope. The central player tries to slap the hands of the other players as they rest on the rope, and the players in turn try to elude him by withdrawing their hands. It is a rule of the game not to let go both hands at once.

ANOTHER singing game—this one from England—is "Charlie Over the Water." The players clasp hands and circle round and round, one in the center singing:

"Charlie over the water,
Charlie over the sea,
Charlie caught a blackbird,
Can't catch me."

At the last word all squat down, but if the one who is "it" can touch one of them before he gets into that position, that one is "it."

Then there are "London Bridge," "Clap In, Clap Out," "Stage Coach," and "Spin the Platter"—all of which are pretty widely known.

A quieter game is "Capping Quotations." One person gives one, the next person must follow with a quotation beginning with the same letter with which the previous quotation ends.

By all means have "Going to Jerusalem." Two rows of chairs are placed back to back—enough for all players, lacking one. Then a lively tune is played on piano or phonograph while the players march round and round the chairs, clapping hands. When the music suddenly stops, there is a wild scramble for chairs.

The refreshments should be the beloved ones of childhood—hot biscuits and honey, saucer pies or apple turnovers, old-fashioned chewing candy, or popcorn balls.

NOTE: Words for "Miss Jennia Jones" and directions for constructing the frame described will be sent on receipt of self-addressed stamped envelope. Address: Entertainment Editor, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

They Need You

THE American Red Cross is spending $10,000,000 a year to help disabled ex-service men and their families. In addition, huge sums are spent to help public health nursing, first aid, disaster relief, and other worthy causes. Farmer and city man share alike in this great service.

Beginning Armistice Day and lasting until November 24th, every person in the United States, including yourself, will be given a chance to renew his Red Cross membership, or to become a new member.

FARM AND FIRESIDE doesn't often ask you to subscribe to any cause. We don't now. But we do feel that the Red Cross deserves your support just as much now as during the World War.

THE EDITOR.

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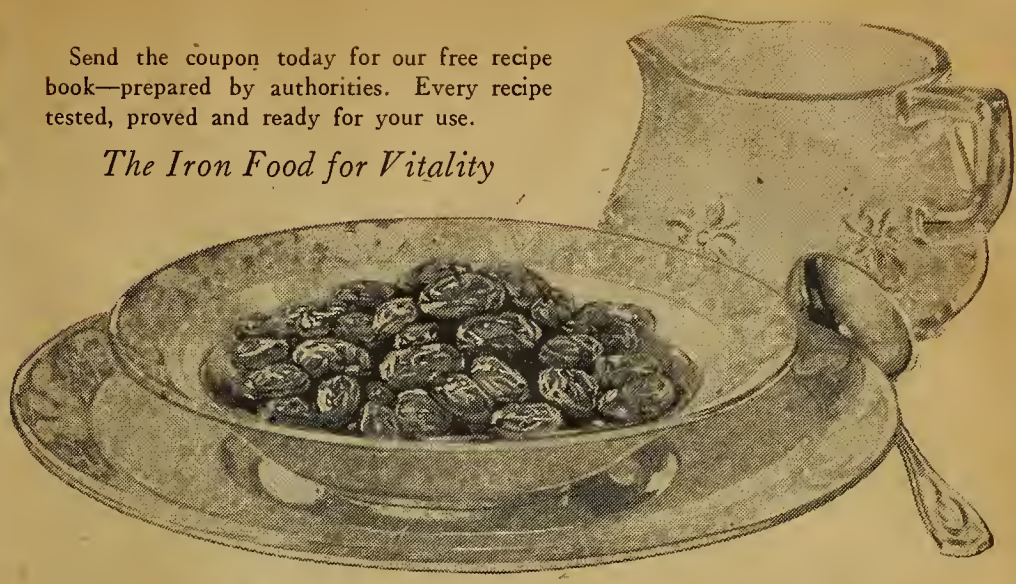
The Iron Food for Vitality



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Be like the "Iron Men of Yesterday"—Eat Raisins, "the Iron Food for Vitality"

Try these ways to serve them. See which your men folks like best.

Serve plain with cream.

Try them with any oatmeal, simply mixing them with the cereal.

Always keep a box of raisins in the house. Use them to make any plain food tempting—for an economical dessert, a sauce for baked apples, or a flavor for ice cream. Raisins are delicious, healthful and economical—use them often.

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Raisins are rich in food-iron—the *natural*, assimilable kind. You need but a small bit of iron daily—yet that need *is vital*. Raisins in the diet daily will help to *insure* it.

Food-iron makes red corpuscles in the blood and brings vim and energy to men. Helps them to work better.

Then raisins furnish *rare* nutrition—1560 calories of energizing nutriment per pound. More of *this* type of nourishment than eggs, milk, meat, or fish. Raisins are mildly laxative also—good for clear complexion and clear brain.

So no other breakfast dish is better than stewed raisins, if you want to serve foods that are both good and good *for* you.

Raisins are cheaper by 30% than formerly—see that you get plenty in your foods.

Try them now—for ten days as a test. See the results. Your entire family will enjoy this luscious food. *Our free book tells how to stew raisins.*

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Please send me copy of your free book, "Sun-Maid Recipes."

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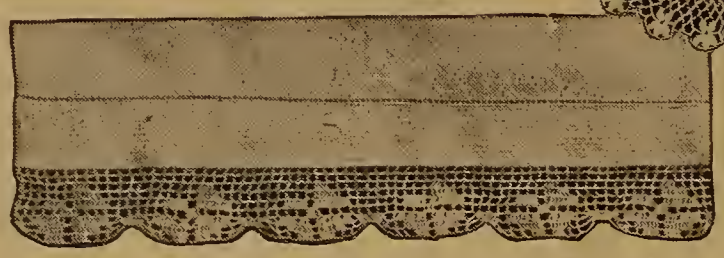
FOUR-YEAR-OLD Helen Roland of New York City probably has her picture taken more often than any other little girl of her age outside the movies. She is a professional model and, because she smiles and plays just as though the camera weren't registering, she is a very successful little person indeed. We got her to wear this warm little white hood in puff-stitch so that you can see just how your youngster will look in one like it.

THIS lacy narcissus edge may be used for single doilies or for a set. It looks intricate, but one of the nicest things about it is that edge "works up" very quickly.

AND last, here is an edge in filet crochet. This time it is a dainty flower motif interchanged with a bit of solid work which has the look of torchon. This edge is quite as nice for a bureau or buffet cloth.



DIRECTIONS for making these designs will be sent upon receipt of ten cents in stamps. Order No. FC-143. Address Fancy-Work Editor, Farm and Fireside, Springfield, Ohio.

For Your Thanksgiving Dinner

By Helen F. Bee and Selina Avery

Tested in Farm and Fireside's Experimental Kitchen

TAKE a chicken which weighs 2½ or 3 pounds, split down the back as for broiling, lay it in a dripping pan, skin side up, and surround it with six parsnips which have been peeled, parboiled, and split lengthwise. Sprinkle with one and one-half teaspoons of salt. Bake until the chicken and parsnips are tender and brown, remove chicken to platter, garnish with parsnips, and then add two cups of rich milk or thin cream to the liquor in the dripping pan. Thicken this gravy with two tablespoons flour and season with one teaspoon salt. Serve with baked potato.

Mock Oyster Stew

3 cups milk
2 cups cabbage
⅛ teaspoon pepper
1 teaspoon salt
2 tablespoons butter

Chop the cabbage, cook in clear water until tender. Add salt, butter, pepper, and the heated milk. Serve with crackers same as oyster stew. Cauliflower may be substituted for the cabbage.

Shell Beans in Winter

2 cups red beans
1 teaspoon salt
¼ teaspoon pepper
1 cup milk
2 tablespoons butter

Pick over and wash beans. Let soak overnight, and stew them in the morning for two or three hours. Add the milk, salt, and pepper, and finish cooking. It will take from half an hour to an hour to finish cooking the beans after adding the milk, according to the amount of water left in them at that time. Just before serving add the butter.

Apple Butter and Nut Pudding

¾ cup apple butter
2 tablespoons melted butter
1 small egg, beaten
3 tablespoons nut meats
¾ cup milk
1¼ cups flour
1¼ teaspoons baking powder
4 tablespoons sugar
¼ teaspoon salt

Mix in the order listed, and bake in a moderate oven about half an hour. Serve with cream and sugar.

Steamed Berry Pudding

1½ cups flour
1½ cups blueberries or blackcaps
¾ cup molasses
¾ teaspoon soda
¼ teaspoon salt

Beat soda in molasses until it froths. Add to other ingredients, and steam in a greased pail three hours. Serve with cream or hard sauce. Canned berries may be used if the fresh ones are not in season.

Indian Pudding With Apples

3 cups milk
3 tablespoons corn meal
4½ tablespoons molasses
¼ teaspoon salt
¼ teaspoon each cinnamon and ginger
4 apples

Cook corn meal in milk for ten minutes, stirring frequently. Add molasses, spices, and salt, and bake in a slow oven two hours. Stir two or three times during the first hour of baking. Put in the pared and quartered apples when the pudding has baked one and one-fourth hours.

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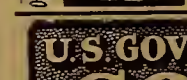

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His Vacation Paid

By F. R. Cozzens

LAST summer Howard Evans, an Ohio farmer of my acquaintance, took a vacation. Besides spending two weeks in sight-seeing, he found time to cram his notebook with information that saved him at least $100. Here's how and why he did it:

"I wished to install a lighting and power plant on my farm," Evans explained, "and I was puzzled over the model and size to select. Several agents visited me and gave their estimates, but the figures were too high, and none of the plants seemed to meet my demands.

"One evening, while reading an agricultural journal, I noticed a piece about a farmer in an adjoining State who had been facing the same problem as myself. He had at last been successful in installing a power plant that exactly suited his farm.

"I read on," continued Evans, "and found that this fellow's farm was a great deal like mine. His experience sounded so practical that I determined to go and pay him a visit. As soon as the crops were laid by I procured a railroad map, and found that I could travel in a roundabout course and be able to attend a state fair and several stock-judging contests. I discovered also, that, with little expense, I could call on relatives and visit some interesting cities. I traced the whole course out on the map with my pencil. I started the next Tuesday on my first vacation. On the evening of the fourth day I arrived at Mr. Whitticer's farm. I saw his power plant.

"I examined the machinery from cellar to attic. Afterward I visited the barn and saw his running-water system—all operated from one motor.

"Mr. Whitticer then went over the details, explaining each fixture, and why he had selected that particular type. He had improved on some of the fixtures, adapting them more fully to his own needs. From his memorandum he was able to give me the exact cost of each article. I took all this information down in my notebook. Being on the ground, it was easy to estimate the whole outfit.

"Within two days I had finished my errand, and, taking my map, I traced a different route home. I arranged to spend a day in the city where Whitticer purchased his plant.

"UPON arriving there I purchased the whole outfit from the recorded information in my notebook. I saw that it was packed and made ready for shipment out to my farm. I spent the remainder of my vacation in another sight-seeing tour.

"Then I figured the cost, including that of my vacation," continued Evans, "and I found that I had saved at least $100; and more—I had purchased an outfit that suited me.

"I was able to do most of the installation myself, and that saved me the expense of hired labor. I was able to construct several new kinks, from the experience on Whitticer's farm.

"Next time I have a difficult farm problem, I intend to solve it in like manner. I already have in mind some new projects, and am waiting to hear of some farmer who has worked them out successfully; then I'm going to pay him a visit, and get the information direct."

Better Farm Babies

I WANT you to know that I sincerely appreciate your letters and the circulars which you have sent me. They surely are very helpful, and I only wish more expectant mothers could know about them and have them for their guidance—especially young mothers who are expecting their first baby.

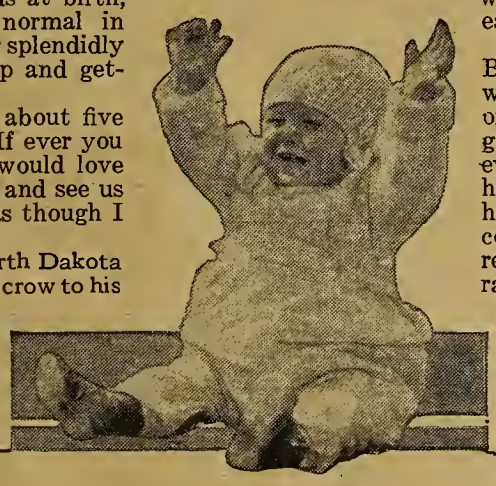
I have a lovely little boy. He weighed seven and a half pounds at birth, and seems perfectly normal in every way. I got along splendidly at the last, and am up and getting strong again.

We live on a farm about five miles from the city. If ever you get near Lansing, we would love to have you come out and see us and our boy. I feel as though I really know you through the good letters you sent me, and I want to keep in touch with you. *Mrs. R. A. S., Michigan.*

I AM sorry time has run along so far past the date of the baby's birth before sending in the card, but I find I keep rather busy now with the care of the little one. I was so pleased with the letters, and looked forward to their coming each month.

Our baby surely is a Better Baby—she is so well and is gaining all of the time. She has gained half a pound every week so far. It has been dreadfully hot here in this part of the country, and for that reason she has been rather cross at times. But she really is a very good and happy baby.

Mrs. A. W., Kansas.



Robert R. Kling of North Dakota has a right to cheer and crow to his heart's content. He scores 93¾ per cent as a Better Baby, and has never been sick a day in his life.

21 Letters About Your Baby

And How You Can Get Them

THE EXPECTANT MOTHERS' CIRCLE: Any woman eligible may become a member, receiving each month a letter of advice on the care of herself and the preparation for her baby. Several practical little pamphlet circulars showing designs for maternity dresses and a common-sense layette are some of the helps sent with the letters. No matter at what period you enter, everything from the first month will be sent. No mention of the Better Babies Bureau is made on the envelopes in which the material is mailed. Enclose a self-addressed envelope with *Fifty Cents* in stamps, for postage, *and state what month you expect your baby.*

THE MOTHERS' CLUB: Every mother of young children is eligible. Pamphlets, together with monthly letters of instruction on the care and feeding of babies *under one year of age* (covering such subjects as colic, constipation, weaning, teething, etc.), will be sent to any mother who sends *Fifty Cents* in stamps and states the age of her baby. There are also leaflets giving diet lists, and other helps for babies from one year of age to three years. This literature is all included in the Mothers' Club's monthly service, but if the letters are not desired the additional literature will be sent for *Ten Cents.* A self-addressed stamped envelope will bring a prompt reply to every inquiry. Address all inquiries to

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Ask for this ten-day test. Watch the results of it. See for yourself what it means to your teeth—what it means in your home.

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Film has been the great tooth problem. A viscous film clings to your teeth, enters crevices and stays. Old ways of brushing do not effectively combat it. So millions of teeth are dimmed and ruined by it.

Film absorbs stains, making the teeth look dingy. It is the basis of tartar. It holds food substance which ferments and forms acid. It holds the acid in contact with the teeth to cause decay.

Germs breed in it. They, with tartar, are the chief cause of pyorrhea. Thus most tooth troubles are now traced to film.

Combat it daily

Dental science has now found ways to daily combat that film. Careful tests have amply proved them. They are now embodied, with other most important factors, in a dentifrice called Pepsodent.

Millions of people now use this tooth paste, largely by dental advice. A 10-Day Tube is now sent free to everyone who asks.

Its five effects

Pepsodent combats the film in two effective ways. It highly polishes the teeth, so film less easily adheres.

It stimulates the salivary flow—Nature's great tooth-protecting agent. It multiplies the starch digestant in the saliva, to digest starch deposits that cling. It multiplies the alkalinity of the saliva, to neutralize the acids which cause tooth decay.

Modern authorities deem these effects essential. Every use of Pepsodent brings them all.

See the results

Send the coupon for a 10-Day Tube. Note how clean the teeth feel after using. Mark the absence of the viscous film. See how teeth whiten as the film-coats disappear. Watch the other good effects.

This test, we believe, will bring to your home a new era in teeth cleaning. And benefits you never had before. Mail coupon now.

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What P. A. hands you in a pipe it will duplicate in a home-made cigarette! P. A.'s a cinch to roll because it's crimp cut and stays put!

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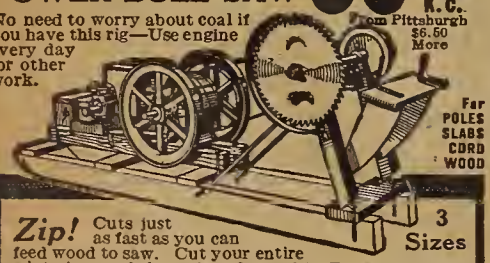

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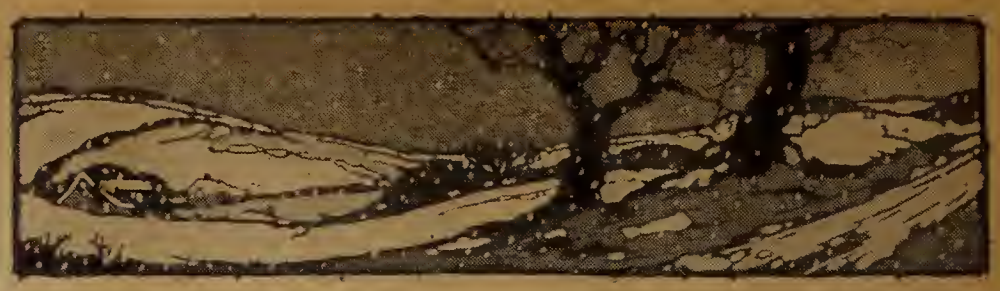

The Coffee Hound

[CONTINUED FROM PAGE 24]

recital the whole while Tobe, unable to see anything funny in it, sat and looked at his boss in astonishment. John James hung around waiting for instructions.

"John James, all I want you to do is to take this paper over under the grandstand, and hand it to Sammy Montague. Do you know him?" John James, Jr., nodded. "That's all, but hurry. See if you can go as quick as Tobe came back a minute ago," Jimmy added, laughing again.

As John James, Jr., went out of sight in the crowd, Jimmy turned to Tobe.

"Listen, Tobe," he said, "get this! I'm betting every nickel I own that we win this race with Tartar Lady. Poker Bill is *not* betting on Sox Ludlow. He wants us to win this first heat."

"Whut's 'at, Boss?" incredulously.

"He wants us to win the first heat. Then he figures he'll get better odds, and will put up money to win after that."

"Whut'll Ah do, Boss?"

"First heat you'll just sit tight and ride home ahead of Sox Ludlow. Don't hurry the mare, or try to beat him bad. Just come home ahead of Sox Ludlow. That clear?"

"Oh, yessuh, Boss. Ah'll sh'o do that li'l thing."

NOT a great deal need be said for the first mile of the mile run and repeat, as it was labeled on the score cards. It was not much of a race. There was a little local mare, Queen of Gasoline, and a big Bronnenberg horse, Ups and Downs, also in the race, but neither could make it interesting for Tartar Lady. As for Sox Ludlow, the jock on his back did not let him try, holding him under double wraps all the way. The crowd thought the mile proved Tartar Lady clearly the speediest, and gave her a great hand. But Jimmy Hull, better than anybody on the grounds, including Poker Bill Ludlow, understood the situation. Winning the first heat was all right, but winning the second might be a horse of another color. Back at his stall after the heat, Jimmy hurried the rub-down as best he could, and then turned the mare over to Tobe, who took her, warmly blanketed and bandaged, around the cooling-out rings to keep her from becoming stiff before the next heat. Starting out the door of the stall, Jimmy ran into young John James, Jr.

"Hello!" said Jimmy. "Back again?"

"Yep. Thought mebbe I could help yuh, or sumpin'."

"Well, that's fine," Jimmy replied, in abstraction. He was deep in study, casting about for comfort over the race and thinking of means to insure landing the tractor agency. John James, Jr., brought him out of his absent-minded state.

"Say, is there?" he demanded sharply, with an air of importance.

"Is there what?" asked Jimmy.

"Something I can do."

Jimmy looked out over the grounds, and then, without any particular idea in mind, down the row of stalls.

"Why, yes, of course," he replied casually. "You see that stall down there where the boy is leading a horse out, all blanketed?"

"Sure."

"You might take a stroll along there and then come back and tell me what is going on in there."

He dismissed the boy without further thought, but John James, Jr., assumed what seemed to him to be a tremendous responsibility and shouldered off in front of the barns as if under a great weight. Jimmy sat down on a bale of straw, picked out a strand, and absently began picking his teeth, the while he watched Tobe walking Tartar Lady around one of the cooling-out rings. As he watched, Tobe passed the boy leading Sox Ludlow, and Jimmy noticed they were bantering each other. Tobe then came slowly toward Jimmy, leading the mare by the halter.

"Say, Boss," he exclaimed in a hoarse whisper, "'at boy 'ith Sox Ludlow say he gwine give us a run fo' ouah money next time out."

"I suppose so," and Jimmy's heart sank. "Up to us to run our heads off, Tobe."

"Ah'll sut'nly git this ma'e ovuh the groun', Boss," Tobe declared, "Theah's 'at li'l white boy agin."

Jimmy looked about to see John James, Jr., plodding along in dejection toward him. The boy looked as if he had undergone a woeful disappointment. Seeking the diamonds of romance and adventure, he was returning with the dull glass of boredom.

"ANYTHING doing, John James?" asked Jimmy, grinning at the picture in spite of his own gloom.

"Naw," said John James, Jr., sourly. "Nothin' but a man in the stall makin' some coffee."

"Whoopeeeeee!" Tobe Harter scared the mare and startled the neighborhood with a combination whoop and scream. Jimmy looked at him in dull surprise. "Now Ah got it, now Ah got it!" exclaimed the excited little darky.

"Got what?" Jimmy demanded.

"Ah oughta knowed it befo'. 'At hoss, Sox Ludlow's a coffee houn'."

"A what?"

"Coffee houn', Boss. 'At's the way they dope 'im. Give 'im two quarts o' boilin' hot coffee, and he runs like a crazy hoss!"

"Oh-h-h! "and Jimmy drew a sigh of relief. "So that's it, is it? No wonder he's an in and outer. Ludlow bets his money and feeds the horse coffee at the same time. Without the coffee he don't bet, and he don't win. Now I see."

"Le's swipe that coffee!" exclaimed John James, all enthusiasm again. "I'll get that can offa the fire if the man goes outa that stall." He swelled up with importance and confidence.

"Now, y'all's talkin'!" Tobe declared.

"Tobe, you go on back out there with the mare, and walk her around in front of the boy with Sox Ludlow all the time, so he cannot see his own stall," Jimmy said, coming into action suddenly. "If Ludlow leaves the stall, we'll get that coffee."

"Yessuh, Boss," and Tobe swung out to the cooling ring again.

"John James," said Jimmy, "have you got a lot of nerve?"

"Me? Say, I dove offa the railroad bridge last week."

"Folks know about it?"

"Sure. Mother gimme a lickin', and Dad gimme a dollar."

"YOU'LL do," Jimmy laughed. "Listen, we'll do this so there'll be no danger. I'm going up there by the fence at the edge of the track. You stay here. When Ludlow leaves the stall and goes away, I'll take off my cap. When you see me take it off, you come along, go in the stall, and get the can. I'll watch, so nobody will bother you."

"That's easy," the boy declared confidently.

"All right. You watch for me to take off my cap," said Jimmy, feeling certain he could protect the boy in case anybody returned to the stall, and positive that the wisest part he could play was that of watchman.

Jimmy then walked over to take up a position on the rail of the track, ostensibly to watch a heat of a trotting race, but really to command a view of Poker Bill Ludlow's stall. After a time he saw Poker Bill, a big, rough-looking specimen with black mustache and an overgrown jaw, leave his stable and proceed in the direction of the grandstand. Making sure that Ludlow was out of sight, Jimmy raised his cap and looked for John James, Jr. The boy saw him and walked boldly to the Ludlow stall. Very casually, he walked right in at the door. Once inside, with Jimmy worrying at the track, he looked quickly around. His nose and his eyes shared in the discovery of a small kerosene hot plate and a can of boiling coffee. The aroma nearly took him off his feet.

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John James held his nose, kicked the boiling mess off the blaze and spilled it on dirt and straw of the stall. He snuffed out the flame, and emptied the kerosene tank. On his way out he picked up a can of coffee from a chest. Peering out the door an instant, he saw the coast was clear, and he walked boldly out and down the row of stalls toward Jimmy's, the can of coffee under his arm. There was a decided swagger in his stride as he turned in at the door of Jimmy's stall.

Jimmy drew a long sigh of relief. He left his post at the rail and walked casually back to his stall. Once inside he grabbed the boy and hugged him.

"Here! How d'yuh get that way?" asked John James.

"Boy, you're there!" exclaimed Jimmy. "Now we can go on and win this race."

"What're yuh givin' me?" scoffed the youngster.

"A dollar, uh, er, to-morrow," said Jimmy, feeling his pockets.

"Lay off that stuff!"

"Listen, don't you want to take that can of coffee over to Mary Martha?"

DODGING back through the crowd and across the track, fifteen minutes later, John James, Jr., made his way to the Amsden family party. As he sat down, the runners appeared for their second mile and claimed attention.

"There comes Jimmy!" exclaimed Mary Martha, in the face of her mother's frowning effort to discourage her enthusiasm.

"What is that you have there?" asked Mrs. Amsden of John James, Jr.

"A can of coffee, from Jimmy to Mary Martha, with his compliments," said the boy with a mock air of polite solemnity.

"Mary Martha, what is all this nonsense?" demanded Mrs. Amsden.

"Why, Mother—oh, look they're giving him a cheer!" she interrupted herself to call attention to the reception accorded Jimmy and his mare, Tartar Lady. John James Amsden smiled behind his hand. John James, Jr., joined lustily in the cheering.

Meanwhile Ludlow had returned to his stall. His conduct after having placed five hundred dollars at eight to one on Sox Ludlow was altogether unbecoming to a gentleman, an officer, or even his own type of fly-by-night horseman. He tore out the door and questioned neighboring horsemen. They had been watching the race, and had seen nothing. Poker Bill searched the landscape for some evidence of thievery, but found none. He sought out his jockey, bringing in Sox Ludlow to prepare for the race, but the jock knew nothing. Poker Bill was up against it. He chased back into his stall and hurriedly ransacked his trunk, but found nothing. In despair, he gave it up. When he had helped saddle the coffee hound, and recalled for the hundredth time that his money was up and he stood to win $4,000, he turned to his trunk again for a last resort. It was a whip wrapped rather heavily with a thin strand of barbed wire that he handed to the jockey.

"Go to the bat, Spike," he said gruffly, "if you have to! Let him have it, heavy."

WHEN Jimmy, leading Tartar Lady, and Tobe Harter, toeing along beside him, came around the track into view of the grandstand, the crowd gave the trio an ovation. Jimmy was popular, and the throngs liked the bow-legged little Tobe, but Tartar Lady was the real favorite. She was a pretty little sorrel mare, with a dark red mane and long flowing tail. Every horseman and follower of the races on the grounds knew her pedigree by heart. Many of them had seen a dozen historic battles on the track between old Tartar, her sire, and the famous Lady Hunt, her dam, winner of a hundred hard races in the Middle West. The little mare carried the Tartar color and Lady Hunt's perfect racing manners, with the speed of both sire and dam. There was sentiment mingled with admiration in the cheers that greeted Tartar Lady as she appeared for the second mile.

Queen of Gasoline and Ups and Downs were out early, and Sox Ludlow came along in good time. They were not long at the post, for Tartar Lady was well behaved, and Sox Ludlow gave a good imitation of a hearse horse, standing quietly in the track where Spike, the jockey, and Poker Bill Ludlow placed him. Tartar Lady was at the inside rail, with Sox Ludlow, Ups and Downs, and Queen of Gasoline ranging in order toward the outer rail.

"Get away fast, Tobe!" said Jimmy Hull as he gave the little darky a leg up. "Take her out in front quick, and keep her there."

Poker Bill Ludlow was also giving his last instructions.

"Give him the bat, Spike!" he growled.

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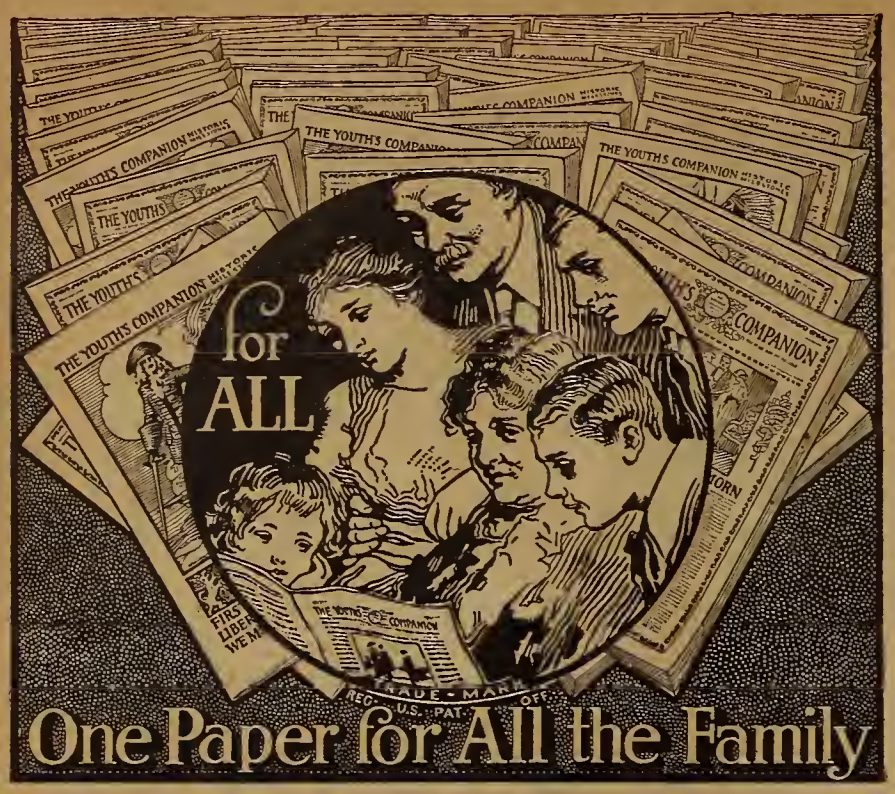

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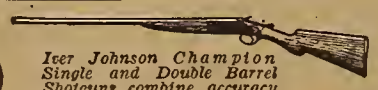

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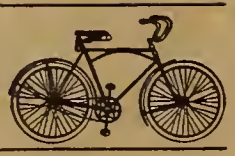

"Go to him. We've gotta win this time."

"Come on, now, boys!" called the starting judge, down on the track with a red flag. "Let's get away quick, for it'll be dark purty soon. Line up, now! Hey, boy, bring up Queen of Gasoline! That'll do. Now, now, here, wait, *wait*, you on Ups and Downs there! Hold on, take back, whoa, whoa—now, *now, go!*"

He flirted his red flag in their faces, and then jumped aside to avoid the horses' hoofs. They were off, in one flying leap, with Tartar Lady's nose showing inches in front on the second jump. The sorrel mare inherited her habit of quick starting from her dam, old Lady Hunt. Sox Ludlow, sluggish, had mysteriously lost his early speed. At the first turn on the half-mile track, Tartar Lady was almost a length in front, gaining with every stride. Spike was urging Sox Ludlow on, and holding him outside Tartar Lady. Queen of Gasoline and Ups and Downs were pulled in behind the other two, and stayed behind the rest of the mile. Tobe kept Tartar Lady in hand going round the turn to the back stretch, but there, straightening out, called on the little mare for more speed. She responded nicely, lowering her nose, thrusting out her neck a bit more, and tucking her tail down a little tighter. Tobe wanted a few feet more lead for comfort's sake.

UP IN the stand, as Tartar Lady forged ahead, young John James, Jr., was yelling his head off, the more interested now from a sense of partnership in the enterprise. John James Amsden, Sr., was plainly nervous, and fidgeted on the hard plank seat.

"Son, don't make so much noise. Father," said Mrs. Amsden, "I'll declare you're as excited as if you owned that horse out there yourself, or had been betting money on it."

Mr. Amsden flushed guiltily, but calmed down somewhat and said nothing.

As the horses fled to the far turn, Spike drew his whip on Sox Ludlow and cut the horse a sharp blow on the hips, at the same time jerking him with one hand, and calling harshly:

"C'mon, boy, get ahead there!"

Sox Ludlow leaped as if to get from under the barbed lash. His powerful hips gathered and sprung in wild strides that carried him gradually up to Tartar Lady's saddle. Tobe, casting an eye over his right shoulder sensed what had happened, and resolved to hold an instant before starting a strenuous ride. He knew there was a second trip around the half-mile track yet to come. Therefore he sat tight, but kept the mare running well, around the turn and down the home stretch for the first time. It was a pretty duel, albeit neither animal was strung out, and the crowds rose and cheered like mad as the pair swept past the stands, flinging clods backward in a shower on the laboring Queen of Gasoline and Ups and Downs.

Jimmy, huddled inside the rail near the judges' stand, appraised the pair quickly as they rushed past. He noted that, although Tartar Lady was running easily, with Tobe sitting tight, Sox Ludlow was not being pushed to his limit. Both had something in reserve. His one worry was whether the coffee hound would respond to treatment of the sort he felt certain Ludlow had ordered. Poker Bill, standing on the outside of the track, likewise looked over the pair. When they had passed and were rushing out of sight around the first turn again, Poker Bill swaggered across the track and approached Jimmy at the fence.

"Well, sonny boy, your mare's running a little, ain't she?" he sneered.

"A little," Jimmy answered, grinning. "And I hope she'll run some more before she's through."

"She'll need to. Say," exclaimed Ludlow suddenly, "have you been hangin' around my stall?"

"Me?" and Jimmy looked at him in mock surprise. "I've got a perfectly good stall of my own."

Ludlow glared at him from beneath scowling brows, and then turned and walked back out into the track, to get a better view across the infield. Tartar Lady and Sox Ludlow were midway down the back stretch now, and Spike was going to the bat. He smashed the horse a wicked blow on the ribs with the barbed whip, and Sox Ludlow flung out wildly in pain. Again Spike plied the whip, lashing the horse across the shoulders. Crazy with the agony, Sox Ludlow bolted down the stretch in long, infuriated strides, and at the far turn was head and head with Tartar Lady. Tobe knew the race was on.

Grabbing a wrap of the reins as he leaned forward, the boy crawled out over the little mare's shoulders and hunched away from the saddle, to take all the weight possible off her back. He called to her softly, urging her on, and swayed and swung, lifted and flung, with her every stride. Without recourse to the whip he carried, he held her nose and nose with the horse. So they flashed around the turn and into the home stretch for the last time. Spike was still plying the whip. Entering the straightaway, Sox Ludlow, running wide, thrust his nose inches in front for an instant. Still refusing to be stampeded, Tobe sat tight and hand-rode the mare, Tartar Lady flattening out and giving her utmost. In three strides she had nosed back to even terms. In three more she was an inch in front. Halfway to the wire her head showed clear and, despite the frantic beating Spike was giving Sox Ludlow, the mare had won. The horse, unstrung from his punishment, had no reserve. And at the wire Tartar Lady led by a good half-length. The crowd went wild with cheers. Mary Martha laughed and clapped her hands. John James Amsden, Sr., a nervous man when Sox Ludlow shoved his nose in front, felt suddenly weak in the knees as Tartar Lady swept home a winner, and sat down to recover from a cold sweat before collecting his bet.

Jimmy Hull, huddled against the rail as the race ended, went limp for a moment, not so much from the excitement of winning, as from the fleeting thought that he might have lost all he had chanced. His money might have vanished, and with it the chance to land that tractor agency. He was wiping the sweat from his forehead when he heard Poker Bill Ludlow, at his side, saying:

"Race you again, for money, any time, any place!"

Jimmy looked around, eyed the man with distaste, and shook his head.

"Yuh can't quit on me like that. Be a sport! Gimme a chance!" he insisted gruffly. "Money, marbles, or chalk."

"I'm through," said Jimmy. "No more racing, no more betting. I'm cured."

"For good?" and then, as Jimmy nodded, Ludlow demanded, "Sell me your mare! What'll yuh take for her?"

AT THIS point Jimmy's dislike for the man crystallized. He could not stand the idea of selling the little mare into this fellow's hands. He shuddered at the thought.

"Nothin' doin'!" he declared, adding maliciously, "You couldn't use her. She don't like coffee." Taking his blanket off the fence, Jimmy started out into the track to meet the returning Tartar Lady and Tobe, as Tobe came back to salute the judges before dismounting.

"Whadd'ya mean?" demanded Poker Bill, grasping Jimmy by the shoulder and pulling him about face to face once more. Jimmy merely grinned. "Damn you, I believe you took that can out of my stall. If I was sure of it, I'd knock your fresh young block off." Poker Bill clutched a pair of dirty fists.

"Ludlow," Jimmy spoke coolly, "do you like your ears?" Poker Bill, surprised at the question, absently felt an ear. "If you do, don't talk like that. I might have to jar you out from between 'em."

Jimmy turned his back and thrust his way through a crowd of admirers that had surrounded the blowing and tired Tartar Lady, to blanket her and get her off to the stall to rub and soothe aching muscles.

The next afternoon, late, John James Amsden, Sr., brought Jimmy Hull home to dinner with him, Jimmy having been detained at the Amsden office while he and Mr. Amsden cleaned up the last details of a contract covering the county for the tractor Jimmy intended selling to the black-dirt farmers of Madison County. The talk was

all of two-lunged race horses and two-lunged tractors. After supper, Mr. and Mrs. Amsden went down-town to see a movie, but John James, Jr., hung around the front porch.

"Jimmy's a good one," he confided to Mary Martha. "Yesterday I said to him, 'What're yuh givin' me?' I meant was he kiddin' me, but he thought—"

"Oh, John James," spoke up Jimmy, reaching into his pocket to produce a hard, round dollar, "come here a minute before you go!" He slipped the dollar into the boy's pocket.

There was an electric light on the corner, but thickly growing clematis and honeysuckle, interwined, shaded the porch from its glare. Jimmy and Mary Martha sat silent in the swing for many long minutes before, with a sigh of relaxation, she permitted her head to be drawn down upon his shoulder.

"It's been a long, hard summer, Jimmy boy," she said.

"Yes, but listen, Mary and Martha! Here comes the winter of our content," the boy replied, jubilant. "Unless—but you don't suppose we'll have any trouble with your folks now, do you?"

"No," she said, shaking her head as positively as one can on a comfortable shoulder. "If Mother objects, I'll get Dad to put his foot down, and—"

"And you'll put your little head up! Away we'll go." He took her hands. "But I want your mother to like me, Mary and Martha."

"She will," murmured the girl. "How could she help it?"

After Jimmy had covered her hair and her cheeks and then her warm lips with grateful kisses, they were quiet again for a long while. Presently Mary Martha spoke.

"Jimmy, you said you were broke when you got back from Muncie. How did you make all that money to close the tractor contract?"

"I was broke. But I borrowed the price of Tartar Lady and bet it on her to win the race against that coffee hound. The odds were six to one." Jimmy rather shivered as he looked back over the last forty-eight hours, at the thought that somewhere along the line his program might have missed fire.

"Why, Jimmy Hull!" exclaimed Mary Martha, aghast. "Three thou— Oh, my goodness!"

"Why not, Mary and Martha?" he asked softly.

"Why, it's—it's wick— Jimmy, you shouldn't have. I could never have stood the suspense."

"I almost didn't. Darn near burst," acknowledged Jimmy. "But, believe me, I'm through with gambling! Never again for me! It's too hard work even when you win."

"And it's wicked!"

"What?" He drew her head down on his shoulder again, and took her hands.

"It's—this once—it's *wonderful!*" she sighed.

[THE END]

How Grand Champions Are Made

By Vance W. McCray, Iowa

GRAND champions are made, not born. They are not accidents; rather, they are the result of scientific breeding and proper feeding.

The barrow that won the grand championship in the fat barrow class at the 1920 International was a purebred Chester White. For many years the advocates of his breed have been striving to produce his kind. He may not be their ideal, but he came the closest to it of any hog in the world, at least in the eyes of the judge.

Nor are grand champions made overnight. This particular Chester White was an eighteen-months-old barrow, but Mr. Williams, the herdsman at Iowa State College, had been feeding him for twenty-two months. The first fifteen or sixteen weeks—the most important part of the entire feeding period—he fed this pig in dam. The making of this champion dates back still farther. For a few weeks before the dam was mated to the sire she was flushed—that is, she was fed on a laxative ration. She was gaining in flesh at the time when she was mated, and continued to gain throughout the gestation period.

Of course this cannot be done on a ration of corn alone. In order to secure enough calcium for her unborn litter, the sow would have to consume 18 or 20 pounds of corn daily, on a ration of corn alone. Tankage was fed, but that is not enough if a sow is to dam a grand champion barrow. Alfalfa was added along with some middlings and ground barley. Fresh water was always at hand, and salt mixed in ashes was supplied liberally. Whole oats were scattered on the floor to induce exercise.

The result was a litter of strong, husky pigs. When they were about three weeks old they learned what the creep was for: they liked the buttermilk that was in there for them. They didn't eat much tankage, because a little goes a long way at that age. Two happy months passed, with the exception of one fateful day when the herdsman brought in a queer-smelling liquid and a razor-sharp knife. The coming champion and his brothers were caught, the disinfectant and knife applied, and their possibilities of ever becoming great sires ended.

Soon after they missed their mother, but they soon forgot her when they found some rich soup made of middlings and flavored with tankage. Then they spent a pleasant summer in a spacious blue-grass pasture. In the center of this pasture was an old gravel pit, watered by a spring, which made an ideal swimming hole. My, how the pigs on the other side of the fence did envy them!

THERE were some horses in this pasture which were fed whole corn; the pigs soon learned to steal some of this corn. In addition, they got corn of their own, ground and mixed with middlings and ground barley, with some tankage and salt added. This was fed in the form of a mash, and was followed with a thin slop of shorts with flavored blackstrap molasses. Molasses makes pigs eat more slop, and increases their appetite. Some oil meal was added to the slop, and during the last month a gallon of buttermilk was added each day for every pig.

The barrows were fed twice daily—all they would clean up. I asked Williams if he ever used a self-feeder for his show stock. He said that he did not, because he could not self-feed that long and keep them up on their feet. In answer to my question "What is the most important factor in developing show stock?" he replied:

"*Exercise*—and lots of feed. I believe exercise is the finest thing in the world for growing hogs. It is even better than buttermilk if one has to choose between the two. Don't try to grow them in a dry lot. That is all right for market hogs, perhaps, but it won't do with show hogs."

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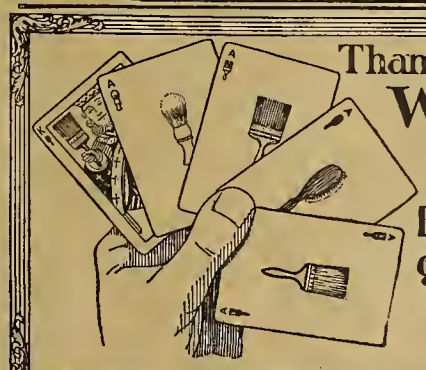

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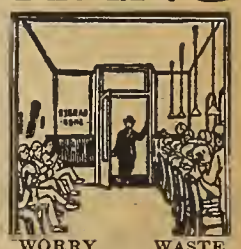

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Our Letters to Each Other

This time—just one more reason why you should be glad you live in America

I THOUGHT this letter from Alan S. W. Lee, at Yunking, in the Province of Chili, to C. LeRoy Baldridge, worth printing on this page this month, because it shows again how much we have to be thankful for that which does *not* exist in our country.

Lee is a Canadian who has been many years in China, and is in close touch with the dreadful famine conditions there. In ordinary times he is head master at St. James High School at Wuhu, on the Yangtze River, a school for Chinese boys. During the war Lee bossed a gang of coolies in France until he was shell-shocked. Here is his letter:

"DEAR BALDRIDGE: I have been in this hole—and 'tis as vile a hole as any place the good Lord ever forsook—just over three weeks, but have had little time to engage in writing. In the evenings I am generally too weary to do anything more violent than smoke and read.

"In most parts, from the few rumors that seep through to this center of isolation, the famine seems pretty well over. Here it flourishes with unabated vigor. There has been but one fall of rain in nine months or more, consequently there were no spring crops to carry the people over till the harvest. On the strength of this one shower the farmers planted their autumn crops and, unless there is rain, and plenty of it, and soon, these will never come up, and relief work will have to be continued for another year.

"This is par excellence the poorest sort of country I ever saw. I have seen land as bad in North Africa and along the Suez Canal, but no one is fool enough to try and live there or raise wheat. Even in the best years, only very poor crops can be raised. It seems to me that if all this money had been used on some scheme of transporting the population from the worst parts to some place like Manchuria, it would have been more profitable all around.

"Life here is so hideous that some travelers have been so depressed by it that they have expressed the opinion that it is very doubtful charity to prolong an existence which has to be lived through rather because of the unfortunate accident of having been born than for any pleasure to be obtained. Ten years ago the soil here was good and capable of supporting the inhabitants; then the river Yungting 'opened its mouth' and covered the land with some four to ten feet of fine sand, and it is on this sand they now try to produce grain. The few wells that are not dry are salt and bitter. One of my jobs is making artesian wells, which delight the villagers immensely, some of whom have never tasted 'sweet water.'

"Thank Heaven, the worst part of this job is over—and that is the investigation of villages. The dirt and poverty, misery and disease, are indescribable; and the filthy, evil-looking, foul-smelling stuff that some are reduced to eating would act as a strong emetic to any self-respecting American hog.

"It is a sordid business rummaging in these squalid hovels for little stories of hidden grain; but it, too, has its humorous episodes. The other day I was not permitted to examine a certain room—the excuse is always a 'newborn babe'—and while they were in the midst of explaining, a raucous bray came from the room in question. The answer is that the possession of animals is evidence of excessive prosperity, and debars the owners from drawing grain rations. I commented on the sweet voice of the new child, and checked them off the list. They try all sorts of childish tricks to fool you, but one can tell pretty well from their physical condition whether they need food or not.

This is the type of Chinese girl who lives in the famine district Mr. Lee writes about. The sketch was made by Mr. Baldridge when he was in China. Mr. Baldridge is illustrating Sophie Kerr's story, "Neighbor's Kindness," which begins in December

"I know of one fellow who thought he would be generous and distribute a mild largesse when he left his station. He gave a few coppers to a group of women, who immediately yelled to the rest of the village, proclaiming the foreigner's wealth and folly. He was pursued by all the women of the village; they caught him and bit him, and he finally had to climb a tree to escape. Promiscuous charity is to be avoided.

"I am about 90 miles from Peking—the nearest foreign port—and most of the journey is by cart across sand in which the wheels sink axle deep.

"There are a few interesting things about this place, notably the almost daily mirage of a wide river or lake with masses of great trees on its far slopes. Then this is the place where the Boxer society commenced its operations by killing the two foreigners; their graves are in the center of the Hsin ming djwang, a model walled village just outside the east gate. In one of the villages is an old Boxer who retains his anti-foreign hatred. We were making a well in this village—or rather sinking tubes from the bottom of the old well—and he came along and drove our workmen off, saying it was his well (it was quite dry, too!), and for us to "get."

"They came and told me, and I told them to pay no attention to him, as the well was public even if he did own the fields around. They continued, and he came and cursed them good and plenty. I was annoyed to discover that after going about 100 feet we still got no water—thanks to the Boxer's curse, it was said. So we dug a new well nearby, which he also cursed; but this time we were able to get a good supply of clear fresh water, much to the old fellow's disgust. I am at present feeding some thirty-five thousand a month, which is not so bad for a one-man show. The difficulties are not minimized any by the fact that no one here speaks English and the dialect is abominable. I just manage to stagger through it so they understand.

"Besides grain distribution and wells, we have a wicker works. This latter I hope to develop into an industry throughout the district, as there is nothing for the people to do when crops fail. Willow is the only thing that grows here, and we have some twenty-five persons making baskets, trays, measures, water buckets, etc., out of willow branches. The concern has been going less than a month, but the stuff produced, considering they are all new hands, is very good; also, it is marketable locally and in Peking for a fair profit.

"Altogether you can imagine I am fairly busy.

"I expect to remain here till the first week in July—if I can stick it that long. I shall then spend a while in Peking, and then go up to Kuling for two or three weeks.

"The long queues that come for rations—many hundreds at a time—would afford your pencil an infinite variety of types. I haven't energy enough even to try.

"With kindest regards,

"Sincerely yours,

"ALAN S. W. LEE."

George Martin

A Short Letter to My Heirs

By Bruce Barton

IT IS generally agreed among wise men that the greatest pleasures in the world are the simplest and least expensive.

On a recent spring morning I rose and indulged myself in three such pleasures at a total cost of about fifty cents—the three being a shower bath, a home breakfast, and a cigar.

Then, in a spirit of great content, I picked up the newspaper, which is devoted generally to the doings of the restless, the unhappy, the foolish, and the rich. (How seldom you see the names of useful, quiet, normal folks in the papers!)

Two items stood in adjoining columns in the middle of the front page.

The first announced that Mrs. So-and-so, one of the wealthiest young wives in New York, had persuaded her husband to allow her to take a minor part in the movies. The argument by which she induced him to consent, it said, was that the monotonous round of entertainment and pleasure was driving her insane.

The other item chronicled the suicide of a man whose father built a great business and left a respected name. In his great home, in the balmy air of southern California, the son had concluded that life had nothing more for him, and so ended it all with a bullet in his heart.

The thought occurred to me that all of us poor ought to clip out those two items and leave them in a sealed envelope for our children, to be read after we are gone.

With them should go a brief letter somewhat like this, perhaps:

"MY DEAR CHILDREN: Your mother and I have made an honest effort to use up or give away the little money that we saved in our younger years.

"It may be that our lives will end sooner than we expect, so that we shall fail of our purpose, leaving a trifle behind. But, in any case, it will not be enough to do you any harm.

"Enclosed are two newspaper clippings which tell the stories of a man and a woman whose parents left them rich.

"From childhood both the man and the woman had everything that their hearts could wish. A pony—they had only to ask! An automobile—it was at the door! A trip to Europe—they could start at once! Aladdin, with his wonderful lamp, had nothing on them.

"Ponies and automobiles and travel are all good pleasures, and you can enjoy them later by trading the world a little honest work in exchange.

"But there are certain pleasures which I am leaving you that this rich man's son never had.

"One of them is the pleasure of getting up at four o'clock in the morning and carrying a newspaper route, and bringing home at the end of the week your first two dollars.

"Another is the thrill that will come to you when you graduate from school and get your first job, and the boss calls you in and says: 'Young man, you are doing very well here, and we are going to raise you five dollars a week.'

"Another is the splendid adventure of building your own home, and whittling the mortgage down little by little until it finally disappears.

"These pleasures the rich young man and the rich young woman never had; they will be yours as they were Lincoln's and Grant's and Rockefeller's and Commodore Vanderbilt's. My hope is that you will enjoy them as much as they have been enjoyed by,

"Yours truly and affectionately, DAD."

S. S. McClure once said that he meant to leave his children the "blessings of poverty." It was a wise remark.

I feel particularly good this morning, and hope it may be a number of years before I have to leave my children at all.

But when I go I want them to say: "The old man had a good time while stopping in these parts. He used to whistle and sing when he turned on the cold shower in the morning—and how he did love his after-breakfast cigar!

"Some mornings he would sort of stretch and say: 'I wish I was rich and didn't have to work to-day.' But right away he would shake himself and settle down to the typewriter. And if someone *had* left him money, I think it probably would have shortened his life.

"For, no matter how much he grumbled, he certainly did enjoy work!"

FARM & FIRESIDE

The National Farm Magazine

DECEMBER 1921 5¢ A COPY

Coöperate? Yes, But—

See Page 1

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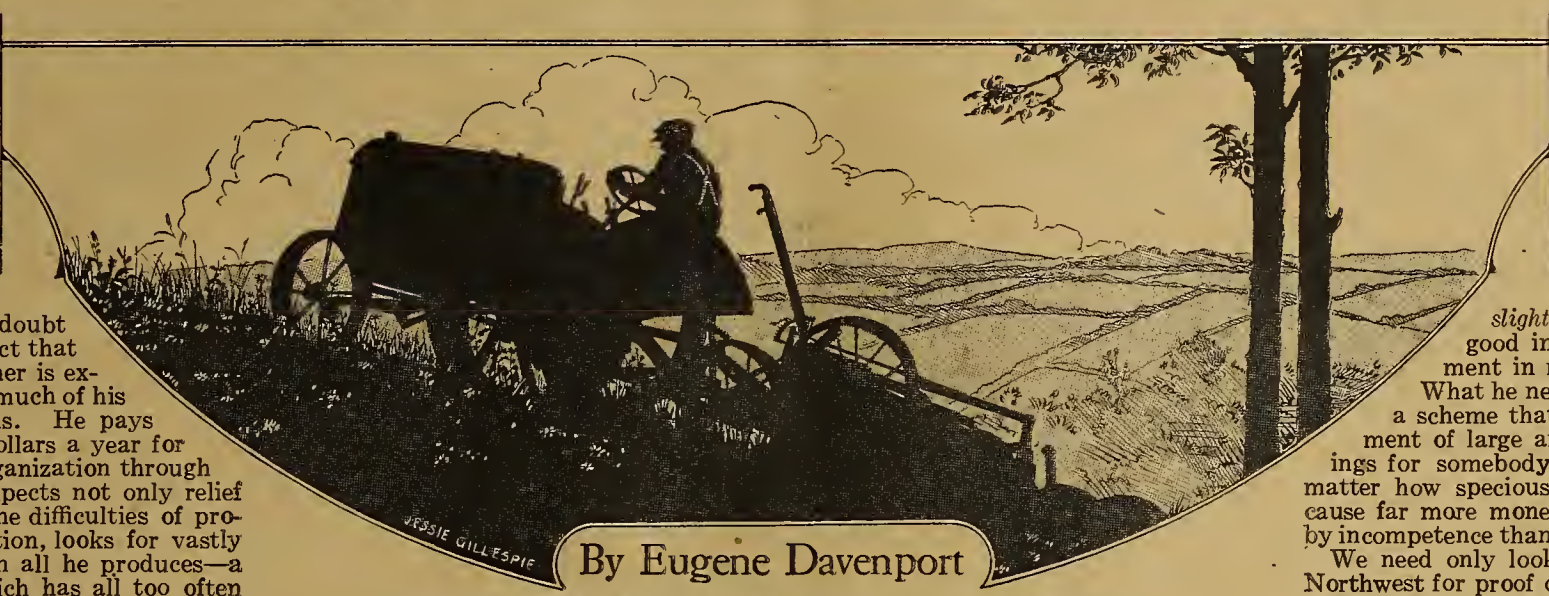
FARM & FIRESIDE

The National Farm Magazine

December 1921

Coöperate, of Course,
But Keep Right on Running Your Own Farm



By Eugene Davenport

Who is Dean of the College of Agriculture, University of Illinois

THERE is no doubt about the fact that many a farmer is expecting too much of his organizations. He pays in, say, five or ten dollars a year for membership in an organization through which he too often expects not only relief from practically all the difficulties of production, but, in addition, looks for vastly increased prices upon all he produces—a veiled promise of which has all too often characterized the representations of over-enthusiastic canvassers.

Altogether, if the expectations of great masses of farmers should or could be realized, and if each new organization should or could return benefits at all in proportion to expectations, those benefits would represent returns of several hundred, if not thousand, per cent on the investment.

Manifestly, such returns are unreasonable and impossible. There is no way of getting something for nothing in farming, any more than in any other enterprise. The farmer comes nearest it legitimately when the sun and the rain and all the elements work for him, but fortunately there is no way whereby the farmers, singly or in organization, can practice the genteel form of stealing that sometimes sails under the flag of speculation.

IT HAS often been represented to the farmer that all speculation is a crime; but the farmer himself speculates, and must speculate, every time he plants a crop or feeds off a bunch of steers. Whoever buys grain or meat in the open market must provide the funds with which to pay for it, and he must sell it again—at an advanced price, if he can; at a loss, if he must. This is speculation, and the very heart and soul of enterprise. Moreover, it must be remembered that more money must be made than is lost in trade, or else capital will not be attracted and trade cannot be conducted. By as much as the farmers or their organizations assume the business of trade, to that extent they become speculators.

Now, speculation commonly deals in close margins, and it is not too much to say that the vast majority of individuals, of partnerships, and of corporations attempting it fail and go bankrupt in one form or another. This is only another way of saying that the bulk of the business of the world is done by the few who are specially gifted in trade—and these are the so-called big fellows whom men have been often taught to hate, yet who, after all, carry the bulk of the world's business at those points at which it focuses in unusually large amounts.

All this being the case, the farmer need not expect to get something for nothing out of even his most efficient and effective organizations. He should look upon his organization as a means of increasing his effectiveness, not of doubling his profits automatically and without extra effort upon his part. That is the mistake so commonly made by labor unions, and that is what is wrecking the industry of Great Britain, as everybody can see who notes the decreasing production, the increasing wages, the mounting prices, and the growing scarcity that go hand in hand, and must always go hand in hand.

Organization and all forms of coöperation begin where individual effort leaves off, and it is effective in direct proportion as the individual is efficient. The organization is no substitute for industry and enterprise. It is its complement, and often a necessary element to success, just as an unorganized body of men is a mob, not an army.

But in the best of armies the final result depends, and must depend, upon the individual soldier doing his full duty. If he should say, as he confronts the enemy, "Oh, I don't need to do much; we are organized and propose to let the organization do the hard work," who would probably carry the field in that case? Or if he should say, "I have gone on the eight-hour plan, and we have decided among us just how much fighting we propose to do or permit to be done per hour or per day," how far would that go with an enemy?

AND yet that is exactly the situation of farmers and of all others who belong to organizations, of whatever kind, affecting either production or distribution. The enemy we *all* must combat is hunger, cold, and poverty, by which latter term we mean the lack of decent provision against the next day's needs. These enemies beset us constantly as individuals and as nations, because they are the enemies of the race and of all life. They are therefore not only world-wide, but also everlasting, and as immutable as the force of gravity or the courses of the stars.

We may organize against them and pass resolutions against the dictum that we shall earn our bread by the sweat of the brow, but it will make no difference with the facts. A few here and there can avoid the natural responsibilities of life, and will always avoid them, just as the thief always preys on another's industry; but when any considerable proportion of people try it they discover their impotence. This is what has hit Russia, and the blow looks like a knock-out, for a few generations at least, of that most numerous of all our western peoples.

The farmer must not make the mistake of assuming for a moment that he can get something for nothing by any method of organization, and he must not make the other and the more likely mistake of expecting the impossible of his organizations.

He will continue to plow and to sow and to cultivate as before, and if by means of maintaining membership in his organizations he can learn ways of more effective or more economical production, or if he can thereby market to even *slightly* better advantage, and if through his representatives he can secure more adequate hearing at financial and political centers, he should be well content.

If he can get all that for ten or twenty or fifty dollars a year, he is fortunate, for his real blessings, in the future as in the past, will come in small increasements, *but they will come to stay.* These are the benefits he wants. He asks no advantage, but even a *slight* benefit will return good interest on the investment in membership.

What he needs to be careful of is a scheme that requires the investment of large amounts of past earnings for somebody else to manage, no matter how specious the arguments, because far more money is lost in this world by incompetence than is lost by dishonesty.

We need only look to the unfortunate Northwest for proof of this point. Beginning with just grievances, these right-minded people have been led to put their faith in new and impossible remedies; and they have not only lost heavily, but also the credit of whole states is ruined, and agriculture, more than any other industry, depends upon free and unlimited credits—not so much with the individual farmer, of course, but in the channels of trade when crops are moving.

AFTER all is said and done, after all the possible advantages of organization are fully realized, the fact still remains that nothing can take the place of your individual initiative industry, and enterprise upon the farm.

Farming as a business is intensely individualistic, and will remain so. Organization will help in getting information, in widening acquaintanceship, in broadening markets and reaching them. It will facilitate both trade and transportation, and in a very real way it may improve and extend credit, as well as insure farmers' representation where competitive interests clash.

All this is necessary and well, but the farmer must still wake himself up in the morning; he must decide whether to plow deep or shallow, whether or not to buy a tractor, what rotations to employ, and what fertilizers to apply. With all his helps *he* must do the deciding. Indeed, the more agriculture develops, the more complicated it will become; and the more helps he has, the more questions the farmer will have to decide for himself.

The so-called big men in business may not trouble themselves personally about a mass of small details. They have an organization which distributes responsibility, and only the really important decisions, involving new policies, come up to the manager. Not so the farmer. His business is not big enough to admit of much organization, and he must be not only his own manager, but he must also know the details himself, and unless he be one of the larger landowners he must also be a laborer.

NO BIG industrial business belongs to an organization outside of its own with the expectation that some machinery can be devised that will run the business automatically. One might as well turn on steam and open the throttle of a locomotive, and send it down the line unattended, expecting it to make all the stops according to schedule, as to expect that any machinery that has been devised, or that ever will be devised, will [CONTINUED ON PAGE 17]

You've Got to Do It—Nobody Can Do It For You

IT SEEMS to us that most farmers, in having their thoughts centered so much these days on the Farm Bureau Federation, the Grain Growers' Organization, the Farm Finance Corporation, and other new pieces of marketing and legislative machinery, are apt to lose sight of the fact that, after all, the individual's success as a farmer depends primarily on what he does as an individual, on his own farm.

Dean Davenport, with this thought in mind, has written for us this article, pointing out that the Farm Bureau and its subsidiary organizations are not going to be a panacea for all the farmers' ills; and that the farmer will still have to work and think on his own farm to make a living; that this is, after all, a world of individuals, and the individual must do the work and the thinking on his own place before there can be anything that any of these other agencies can do for him. THE EDITOR.

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How My Tractor is Paying for Itself in Time, Labor, and Money Saved

By Hans H. Sandberg

A 212-acre grain farmer near Hennepin, Illinois

REDUCED to terms of dollars and cents, I can see where my tractor is going to pay for itself in less than three years. This may sound like stretching the truth, but I base my assertion on my experiences of the past five years, and on the record of tractor expenses I have kept.

In that time I have had three tractors, though when I discarded them it wasn't because they were worn out, or refused to give good service, but because I saw some new machine which would give better service at smaller cost. That's the same principle on which we farmers have discarded the walking plow for the riding gang, which, with less work, takes in two furrows at one time.

While I haven't figured it to the last penny, I have got a pretty good idea of what a tractor can do, and at what cost, for I have made it a point to operate my tractors myself.

Dollars and cents are really the yardstick by which we measure our farming operations. None of us work for our health or the pure love of it. It takes money to buy the necessities of life, and bring cheer and comfort to our homes.

With my tractor I am able to get along with but one hired man. If I depended entirely upon horses, I would need two hands besides myself to work my 212-acre farm near Hennepin, Illinois, because more than half the land is in corn, while the remainder is in small grain. I raise a few head of livestock, but, primarily, I am a grain farmer.

My tractor will plow and harrow ten acres in a ten-hour day, just twice as much work as one man with a five-horse hitch can do, figuring one acre per horse and making allowance for the harrowing. In view of this comparison, it is easy to see how I can eliminate one man and a team and still do my heavy spring and fall work.

HERE is how I figure my tractor will pay for itself in less than three years:

The elimination of one man at $45 per month means a saving of $450 for a ten months' season. To this I add $250, which about represents the saving of twelve months' feed for the two to three horses I am able to do without. I figure it costs $60 to $65 a head to feed horses, depending upon the cost of grain. The replacement charges of $50 to $75 a year are also represented in this sum at $25 a head.

This replacement is figured on horses worth $200 to $225 each, with an average working life of ten years, giving them an average age of from thirteen to fifteen years, according to when they were broken. Some horses will give more than ten years' service, of course, but when you figure sudden deaths and injuries, you'll find this a fair average.

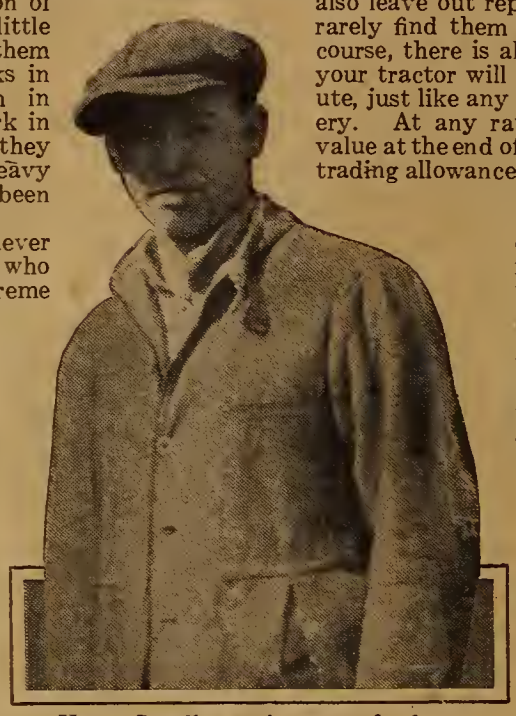
The total of $750 would more than pay for a $1,400 tractor, in two years. However, I make allowance of $2 a day I pay a boy to drive a team during corn-picking time, and any little inaccuracies which may have crept into my figures, though I think any mistakes I may have made are on the safe side.

Let's say then it might take two and one-half years to pay for the tractor—at any rate, it's less than three years.

I don't make any cash charges for the feed I save on the five horses I now have. By this I mean, I don't have to take them off their winter ration of roughage with a little grain, and full-feed them for four to six weeks in order to get them in shape for heavy work in the spring, for when they are needed all the heavy tasks have already been done by the tractor.

To the man who never has had a tractor, or who knows but the extreme examples of tractor costs, these figures and others I have kept on operation costs, may come as a surprise.

I place the cost of plowing and harrowing at 45 cents an acre for both, since they are done at the same time. It takes about 30 gallons of 13-cent kerosene and three-fourths to one gallon of oil, at 64 cents, to plow and harrow 10 acres. I can cover about 20 acres pulling two ten-foot disks and a ten-foot harrow at the same time, and at the same cost.



Hans Sandberg is one of those practical-minded men who succeed in most any business. He chose farming because he liked it best

To this 45 cents add 86 cents more for operating costs and depreciation. I get this amount by figuring the life of a tractor at eight years, and dividing the cost of the machine for the whole 212 acres. The total is $1.31, which, plus man labor, gives the cost of using a tractor. I make no provisions here for labor, since wages vary. I also leave out repairs and upkeep, as I rarely find them necessary, though, of course, there is always the chance that your tractor will break down any minute, just like any other piece of machinery. At any rate, the tractor's junk value at the end of the eight years, or the trading allowance, will, I feel sure, make up the repair charges.

I know some farmers a few miles from me who think it costs them $3 an acre to plow with a tractor. Last fall one man contracted to plow a large acreage at that price, and when he finished and figured up his expenses he *lacked* a few dollars of paying his bills, not to mention any return for his labor. This was unusual, for the season was very dry and plowing was much harder than usual. Yet, people have adopted this figure as being accurate. But I know it costs considerably less than $3 to plow an acre on my farm—at least, much less than when I used horses.

While I am a power farmer, I believe in it only when practical. I have an auto truck and a corn picker, besides my tractor, to help me reduce labor and operating costs, and each has repaid me so far.

I DON'T think we can do away with horses entirely, because, despite what some tractor makers claim, there are some things about the farm a tractor can't do that horses can do. Each have their place.

My tractor, for instance, will pull my corn picker, but for two reasons I use horses instead. An idle tractor costs nothing to keep, neither does it depreciate while standing in the barn. Horses must eat whether they work or not, and age cuts into their usefulness every day. In the second place, the picker needs adjustment or oil almost every round, and if one stops to do it it means time and money lost, since the tractor engine is kept running to save the bother of cranking it again.

Then, too, when I ran the corn picker with the tractor I tried to keep going, and to reach out and do the oiling and adjusting. Several times I lost my balance and fell off the machine, and if I was near a fence at the time, and didn't recover quickly, the tractor kept on going. The result was I had to mend the wire and put in a post or two.

A few years ago, when I lived a short distance from here, I had a soft spot of 40 acres in which there was quicksand. Plowing with horses was all right, but the plow tore up big clods which dried quickly, and the disk made little impression upon them, or, if it did, it simply tore them into chunks still too big for a good seed bed. Later, with a tractor, I plowed this land in good shape, and the disk behind the plow cut up the clods before they had time to dry.

These two examples have convinced me that there is a place for both means of power on the farm.

I SOLD my first tractor after two years, as it was one of the first makes, and was rather heavy and clumsy compared with present models. It didn't have much strength, despite the weight, and there was something wrong with the gasoline feed line. Mechanics in town couldn't locate the trouble, and I lost plenty of time until a field man for the tractor people came along. He simply put a small spring in the carburetor. It worked steadily after that until my hired man forgot to oil and grease it. He got to running to town every night, so that during the day he was always so sleepy and tired he neglected to oil and care for the tractor. I had to let him go, and from then on I have done all the driving myself, and have been getting much better results.

My second machine I sold to my brother after two years, because I saw another machine I liked better, and which I still have. It has four instead of two cylinders, and the weight is [CONTINUED ON PAGE 24]

It Pays Him to Reduce Farm Plans to Dollars and Cents

HANS SANDBERG, who owns 212 acres near Hennepin, Illinois, is only thirty-one, but he's a shark on power farming. He has all of the details relative to estimated costs and performance at his finger tips. When Sandberg finished high school, instead of going to agricultural college, he took a course in business methods.

He has a desk at home, and a number of books in which he keeps records of almost everything. Sandberg has the habit of translating his efforts into terms of dollars and cents. He never does anything without first figuring costs, and the way to increase efficiency.

He says his business training makes it easy for him to keep records, and to figure out where he will land financially each time.

He is farming land owned by his father on a share basis. He is married and has two small children.

Aside from his desk at home, Sandberg has a tool or machine house and private office, made into one. He has, in this small house, drills, wrenches, bolts—in fact, all kinds of first aid for his machinery. He says these cost money, but are right at hand whenever needed, and that saves time, which is also money.

Sandberg has quite a reputation around his neighborhood. Old-timers say he is a bug on tractors and machine farming, but that he is doing right well, because he has a good head for business, and *knows how to handle* his power sources.

Each tractor he has had has taught him a lot of new things. The first one pulled two plows, but he soon found out that he might as well have horses. Now his machine will pull four, in a pinch, but he only uses three, and puts the disk on behind, thus doing double duty, and saving time. He figures he can save more time by using the disk than he can with the extra plow.

THE EDITOR.

Yessir; Quite Some Gift, Thanky!

"Dis am a fool Chris'mas present fo' a big kid lak me!" "Lawsy, lawsy! Now I'se in fo' it!" "Sumpin' gwine happen now, sho' 'nuff!" "'Scuse me fo' callin' you a fool present. I 'polagizes."

Neighbor's Kindness

Harvey Chester's idea was to spend a quiet summer on Watts' Creek—but the ruler of romance, too, had plans

The first of a three-part novelette

By Sophie Kerr

Illustrations by C. LeRoy Baldridge

A girl, her hair in curl papers, came to the door and eyed him with frank curiosity

THE mattress was so thin that as he woke he could feel the shape of the spring beneath it, and he rolled around in the bed, uneasily seeking a more comfortable spot, but too little awake, as yet, to know what had disturbed him. Presently the protests of his right shoulder pushed sleep farther away from him, and he opened his eyes and stretched and yawned and rubbed the painful spot.

"These bum country hotels," he remarked to the empty room, "are the limit! By golly, I'm dented all over like a waffle! Betcha million this mattress is made outa two pieces of cheesecloth and an inch of sawdust. Harvey, you win. All you got to do now is to collect the million."

He sat on the side of the bed, blinking, then reached over and picked up a cheap watch which lay on the dresser.

"Six o'clock and all's well. Now, if the lonely bathtub for gents isn't preëmpted, I'll sluice me down, and then get some grub and on my way. Let's go."

AN HOUR later, washed and dressed and comfortingly full of steak, hot cakes, and fried potatoes, he swaggered out into the village street, a good-looking big lad of twenty-odd, his flannel shirt, open at the throat, his worn khaki trousers, rough shoes, and cap winning for him the disapproval of an old colored man who was sweeping the pavement around the hotel. This was not the way, his glance said, that respectable white men dressed in this part of the world.

"Uncle," quoth Harvey Chester engagingly, "you know anything about the country round here?"

"I'se bawn 'n raise heah erbouts."

"You ever hear tell of a stream of water called Watts' Creek?"

The old negro began to take an interest in the conversation. He rested on his broom and made oration.

"Yessah—my pappy he had his shack down erlong Watts' Crick, he did. Useter go fishin' dere whenas I wasn't no bigger'n a catfish mahse'f. All dat was way befo' de time of de State Road, en dey wasn' no bridges ober it, en all de hosses en buggies jes nachelly waded froo, en, come springtime in de rains, water swirl right up to de hosses bellies. Yessah—I seen it, I has."

"At that it wouldn't be so deep, would it?"

"My land, man, whut you want? Yo' eveh set in a light buggy on a cole Ma'ch mawnin', en tuck yo' feet up on de dashboa'd, en watch yo' hoss strugglin' on de swif' da'k water, en speckilate on whut'd happen to yo' ef he cain' mek de udder side?—reckon you'd be satisfy wid how deep dat crick nachelly is. 'Co'se it ain dataway now. Dey got bridges everywhar—nice big bridges made outa dishyer contreet. I'se talkin' erbout de *ole* times."

"Well, where is this here now dangerous old-time Watts' Creek?" asked Harvey. "Is it far from this here now elegant metropolis?"

The old negro's underlip stuck out ominously. He felt the ridicule, even though he did not understand. He picked up his broom.

"You go on out de souf road, dere, en walk quite erwhile, five, six mile, en you gwine fin' Watts' Crick," he said, and retired with dignity from the scene.

"Yeah, but how'm I going to know it? Got any signboards or anything?" Harvey called after the retreating figure.

"Plenty people you kin ask," returned the negro. "Pears ter me you got lively tongue in yo' haid."

"Sassy old bird," thought Harvey. "Didn't like me passing remarks on his native burg—riled his civic pride. Guess I'll pay my bill and move along."

To pay his bill, to strap together the few small belongings that constituted all his luggage, was but a short procedure. Presently, carrying his bundle, slung hobo-wise over his shoulder, Harvey Chester strolled down the village street, noted its narrow uneven brick pavements, its maple trees, its quiet wooden houses where the porch life of the day was just beginning, its dingy little shops with unimaginative stock, its three churches—"Gee, they must be pi around here!" was his comment on these—and at last turned into the full brightness of the sunshine of early June as it beat on the hard white roadway. He did not walk on this roadway, but on the dirt path beside it, a little string of packed brown earth lost under ragged fringes of plantain and clover, feathery grass, dandelions gone to seed, and here and there patches of fragrant horse mint, whose rough iridescent purplish-copper leaves caught against his khaki and left powdery marks.

Beyond the town there was a cluster of darkey shanties; then only the farms, compact small maps of tilled land, patterned by the crops growing therein, marked and measured sometimes by fences, sometimes by the green exuberance of a thorny osage hedge.

Harvey Chester considered it all approvingly.

"Now this is what I call good-looking friendly country," he told the quiet empty world about him. "Looks as if these people were folks—not too rich, not too poor, but just reg'lar folks. Gee, think how the old shop stinks this morning! And Boss Jansen cussin' like a pirate and runnin' his black hands through his red whiskers till they're streaked like a zebra. Don't seem 'sif it could be in the same world as this here."

He did not hurry, but he had set an even, leisurely pace, and kept to it. Dusty little cars rattled past him now and then, and occasionally he met a farm wagon, mule-drawn, driven by an amiable negro who invariably nodded lazily and said "Good mawnin'!" He liked that, and he returned the salutation gayly.

Presently he began to sing, a ditty that was strangely incongruous to the peaceful countryside:

"Machine-gun bullets were whistling round me—
The old tin hat felt mighty small—
Seventy-fives came fast and faster—
I stuck to the ground like a porous plaster,
Over there in France last time I went to war—
Some war!"

He pranced to the tune, three or four fantastic steps, then dropped down in the light shade of a locust tree that stood, an airy sentinel, by the road. Its flowering time was almost past, but a few of its perfumed white blossoms remained, and a soft breeze tossed them down around him. He watched them, fascinated.

"It's snowin'!" he declared. "Sure's as I'm a son of a gun!" He lay contentedly for a while, then, arising, shook himself. "This don't find us this here now Watts' Creek," he reminded himself gravely. "I've not done over a coupla miles, and it's getting hotter every minute. Let's go!"

HE PICKED up his bundle and struck a better gait, a soldier's steady marching rhythm. The country did not change its aspect; it was all farms—quiet, peaceful, tree-shaded. Sometimes he caught glimpses of men working in the fields, and once he saw a woman churning at her kitchen door; but for the most part an occasional dog or a flock of silly lazy chickens was all the visible life.

The road led him over several streams—streams that fled away into the lush green of meadows or the deep shadows of woodland; but none of them carried more than a hand's depth of water, and after considering them he did not think it worth while even to ask questions about them. They could not be the thing he sought.

ALONG about mid-morning he became conscious of a burning thirst and an intensely hollow feeling about his middle. So, at the next farmhouse, he stopped. A brisk-stepping, gingham-aproned woman came to the kitchen door.

"You a tramp?" she asked crisply.

"No, ma'am—I'm taking a walk for my health," replied Harvey Chester with a twinkle. "And my health likewise demands a lotta food at irregular intervals, so if you'd let me have a glass of milk, and a piece of pie, maybe, I'd sure be willing to pay for it."

"I ain't got any pie, but I guess you can eat this," she answered, and gave him an acre or so of flavorous, spicy gingerbread and a quart pitcher of milk.

He sat on the door stone under a mulberry tree and ate and drank in complete ecstasy.

"How much I owe you, ma'am?" he asked, handing in the pitcher carefully.

"Go 'long, boy, and quit your fooling," replied the smiling woman. "We don't charge hungry boys for a bite to eat and a drink round here. I got two sons of my own."

[CONTINUED ON PAGE 28]

"Say, d'you do this every night? Every night, every day, every week, every month, every year?" he asked.

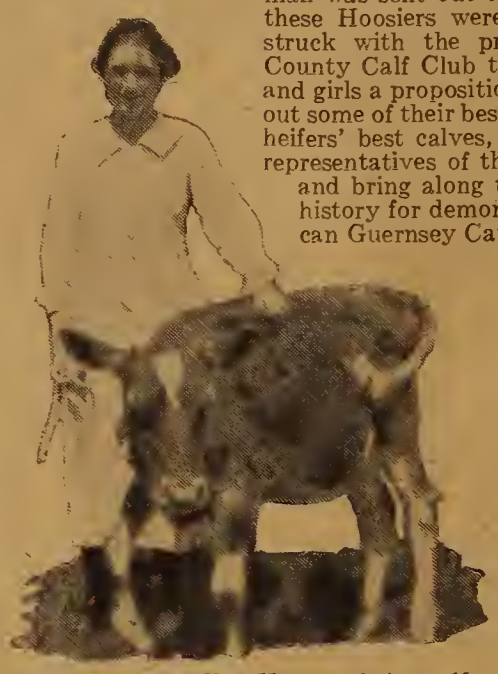
The Story of Areva Van Huss and the Cow With the Hide of Gold

By Daniel Lewis

SIX years ago there was not a single purebred Guernsey in all Boone County, Indiana. Then one of their boys went off to agricultural college and came back and started a little Guernsey dairy.

Prof. Clayton R. George came down from Purdue University to see how the new herd was getting along. He met several bright boys and girls in the county-seat town of Lebanon, and he got an idea. Why not make Guernsey breeders out of these boys and girls? Why not start a Guernsey calf club? He talked it over with the local banker, editor, business men, and some of the farmers who owned the bright boys and girls. They were all for it.

Professor George sent across the ocean to the little isle of Guernsey, and ordered a cargo of calves direct from the home of the breed. That was something new in calf-club work in America—to distribute imported animals. Imported ones had been considered too valuable for any but the most experienced grown-ups to own.



Here are Areva Van Huss and the calf, Imp. Boone Hazel, which she drew in the distribution of purebred Guernsey calves to Boone County boys and girls on July 5, 1918. The picture was taken shortly after she took her prize home

But the imported Guernsey calves finally arrived in Lebanon. One fine summer's day, a little over two years ago, they were distributed by lot in front of the courthouse. Many of them were scrawny and skinny; they did not look so good as some of the grade calves the boys and girls had at home. But Professor George knew about the ancestors of the calves, and he assured the boys and girls that if they would take them home and give them proper feed and care they would come out surprisingly.

One of the skinniest of all the calves was drawn by a little girl named Areva Van Huss. Areva's brother drew a calf too, but his was more husky and promising. I wouldn't be surprised if Areva was somewhat disappointed with the Guernsey business that first day she got into it. Maybe she cried a little.

PROFESSOR GEORGE announced that in the fall they would have a show of all their calves, and give prizes to those boys and girls who had got the best results. At the time for the autumn show the boys and girls brought their calves into town, and tied them up again in the courthouse square. Oh, what a change! Could it be that these were the same calves? And Areva Van Huss's heifer! Did you remember what a sight she was? Just look at her now! Well, it certainly showed what feed and care and the enthusiastic interest of boy and girl calf owners would do. Areva got a prize, and she again led her pet back home, this time with a ribbon on her halter.

Then Professor George announced that when these heifers freshened he wanted the boys and girls to take specially good care of the baby calves, and when they got big enough they would have another show, and give prizes for the best ones out of the new crop of calves. More than that, he wanted the young Guernsey breeders to weigh the milk of their original heifers, which were milk cows now, and keep a record of it. Then he would send a tester from the university once a month to see how rich in butterfat it was. The young owners were also to keep account of the amount and kind of feed used. The boys and girls got more and more enthusiastic. Their parents and neighbors caught the fever, too. They began to buy whole herds of Guernseys. And now Boone County is one of the country's noted centers for the breeding of Guernsey cattle. Professor George himself got so wrought up that he bought a farm in Boone County, and his father and mother moved there to take charge of a Guernsey herd.

It was not long before the American Guernsey Cattle Club, which keeps the herdbooks and Advanced Register records of the breed, in its office at Peterboro, New Hampshire, heard of it. A breed extension man was sent out to Indiana to see what these Hoosiers were up to. He was so struck with the progress of the Boone County Calf Club that he made the boys and girls a proposition: If they would pick out some of their best heifers, some of those heifers' best calves, and some of the best representatives of the second importation, and bring along their records and club history for demonstration in the American Guernsey Cattle Club booth at the National Dairy Show in Chicago, he would pay all their expenses.

So that's how I got acquainted with Areva Van Huss. I met her with her fine, big, beautiful Guernsey cow named Imp. (imported) Boone Hazel, which was that same skinny calf she led home more than two years before, and her bull calf, Dividend's Kitchener, good enough to win fifth prize when Areva showed him in the open senior bull calf class against the best calves of some of the biggest breeders of Guernsey stock in America.

And what is this Guernsey cow which has been so kind to the boys and girls of Boone? She is the dairy cow with the yellow skin—"a good cow, of the sort which produces yellow butter," as the great Victor Hugo describes her in the first chapter of his novel "The Toilers of the Sea," a story laid on the Island of Guernsey. She comes to us from the tiny isles of Guernsey and Alderney, which are in the Channel Island group in the English Channel, 28 miles off the coast of France, and 69 miles southeast of the English coast.

She is larger than the Jersey, whose native home is near-by in the Island of Jersey. In fact, the Guernsey and the Jersey must be sort of cattle cousins; their origin was doubtless the same not so many generations back. The Guernsey cow is smaller than the Holstein-Friesian, whose home, you will remember, is in Holland, not so very far from either Guernsey or Jersey, or even from Scotland, where our other dairy breed, the Ayrshire, comes from.

Maybe you have heard your grandfather speak about an old-time Alderney cow. Alderney Isle is only 22 miles from Guernsey, and all the cattle bred on either island are eligible to registry in the herdbook of the Royal Guernsey Agricultural Society.

Guernsey and Alderney are very interesting little specks in the sea. Guernsey is only nine miles long and five miles wide, while Alderney is only three miles across. About 40,000 people live in Guernsey. The climate is balmy. The island is covered with acres of greenhouses, the chief industry being the growing of vegetables, fruits, and flowers under glass for the London Market. The land rents for $50 to $75 per year, and when sold brings $1,000 to $2,000 per acre. The farms are very small, of course. The cattle are tethered out throughout the year. An old cow has her stake moved every day, so that she systematically grazes over the whole pasture area. Nothing goes to waste in Guernsey. The cattle are also hitched to the two-wheeled carts, and made to "work for a living."

Both Guernsey and Alderney are merely big rocks extending into the sea off the Norman coast. At no place between the islands and the mainland is the sea over 100 feet deep. Undoubtedly, Guernsey and Alderney were one day a part of the French mainland. The sinking of the land left the rocky peaks sticking out of the ocean as the Channel Islands. Before the separation of course all these regions had the same sort of cattle. There was the small breed of Brittany—red and white, and fawn and white, active, giving rich yellow milk. There were the large brindled cattle of Normandy. Doubtless, in the vicinity of Guernsey and Alderney these two races were crossed, resulting in a medium-sized, fawn-and-white breed giving rich yellow milk. These were the ancestors of the modern Guernsey.

MORE than a century ago the people on Guernsey were beginning to think a great deal of the cattle they had selected and developed to furnish highly colored rich milk, cream, and butter. In an ordinance returned in the Royal Court on February 17, 1824, we find that "upon information given to the court that there had been introduced into this island heifers from France, whose age and condition render them unfit to be butchered within four months, fixed by law—other circumstances also having given reason to believe that the intention is either to keep them for cows and by that means to degenerate the breed, which the inhabitants of the island have more and more endeavored to improve," etc. Then the law goes on to provide for a record and subsequent slaughter of all cattle imported into the island. Can you imagine a more efficient method of keeping a breed pure, or to make every farmer keep purebreds? Then the Royal Guernsey Agricultural and Horticultural Society was formed, and the breed became its special ward. It formulated score cards or standards by which to judge the breed, and began to hold an animal show on the Tuesday of Whitsuntide. It seems to have been 1850 when the Guernsey men began to appreciate the special value of the yellow skin in their breed, with the accompanying rich color and flavoring of the product.

The first Guernseys brought into the United States were brought over from the Island of Alderney by Reuben Haines of Germantown, Pennsylvania.

Time has worked its changes since that first picture was taken. The subjects are the same, but what a difference! The two again posed for their photographs at the time of the second annual show, October 1, 1919. The thin little heifer had become a prize-winning dairy cow. While Areva—well, she's changed some too

In 1833 an American sailing vessel touched on Guernsey, and the captain was so impressed with the cattle that he bought a bull and two heifers, and brought them over to his brother on Cow Island, in Lake Winnepesaukee, New Hampshire. In 1840 and 1865 other Philadelphia folks brought over some more Guernseys, probably to serve as "family cows." In 1872 James M. Codman of Brookline, Massachusetts, went to the Channel Islands, and was so taken with the character and color of Guernsey products that he brought over several importations. Mr. Codman began to boost the breed in earnest, and was soon joined by other earnest enthusiasts. That was the real beginning of Guernsey history in America.

It was in 1877 that eleven breeders met in the Astor House in New York City, not so far from where the editors of FARM AND FIRESIDE work and plan, and organized the American Guernsey Cattle Club to publish a herd register. The report at the first annual meeting in December, 1877, stated that 193 Guernseys had been registered by 40 breeders. To-day there are probably 100,000 Guernseys in the United States. It is said that there are more of them in Waukesha County, Wisconsin, alone, than on the Island of Guernsey. Other breed centers, besides southern Wisconsin and bordering States, are in New England, particularly about Boston; New York and Ohio; the Pacific Northwest; and certain portions of the Southeast, as in North Carolina.

The Guernsey drew much favorable publicity to itself in 1901 at the Pan-American Exposition, where President McKinley was shot. At that world's fair the Guernseys won highest honors for economy of production. The American Guernsey Cattle Club then inaugurated an Advanced Register system based on yearly production.

THIS system has had far-reaching results. A cow beginning her record on the day she is two years old must produce 250.5 pounds of butterfat in a year to be admitted in the Advanced Register, and for every day she is over two years the requirement is increased one-tenth of a pound, until she gets to be five years old, or an aged cow, when the requirement is 360 pounds, or more than a pound of butter a day (the 360 pounds of butterfat would churn out more than 400 pounds of butter).

The average production of all the milk cows in America is about 175 pounds a year.

When a Guernsey bull has two daughters in the Advanced Register, he is automatically listed there. Then there are the double-letter classes for cows which make a record and freshen again within 100 days after finishing the test. The highest producing Guernsey cow on record was Murne Cowan, which the late Ohio C. Barber, the match king, bought for a very small sum in a Pennsylvania farm herd, and took to Anna Dean Farm at Barberton, Ohio, where in one year she produced 24,008 pounds of milk and 1,098.18 pounds of butterfat. Four other cows of the breed have produced more than 1,000 pounds of butterfat a year. More than 1,300 bulls have qualified for Advanced Register. Governor of the Chene has 117 daughters in the list, fifty-eight times as many as the qualifications call for. By reference to the Advanced Register records, one can breed Guernseys with intelligence and a reasonable assurance of the results, because here you can find what many of the animals which appear in a pedigree have actually produced.

The Guernsey color is distinctive. It is fawn with white markings. The fawn varies from light or lemon color to orange or reddish. The switch, legs, and underparts of the body are usually white. The hoof and horns are amber-colored. The average bull will weigh about 1,600 pounds, and the mature cow 1,100 pounds. The form is more rugged than the Jersey, and the type is not so refined, not so definitely fixed, for that matter. The kindness and docility of the Guernsey cow are proverbial.

Did you ever see a judge examining a Guernsey cow look into the ear, and then go around and pick up the tail, part the switch as you would part your hair, and peer intently at [CONTINUED ON PAGE 24]

My Experience as a Hired Man With Old Oleo Jones and Others

By Harry Choate

Illustration by Tony Sarg

IN SPITE of a recent report circulated by the zoölogical societies, deploring the rapid extinction of that freak of nature, the hired man, we notice indications of activity among the herders for another general round-up of this elusive critter.

My experience as a hired man dates back to the cradle. Not the lullaby cradle you are thinking about, but that good old-fashioned, heart-breaking instrument of torture that your grandfather used to cut his grain with. Those were the times when sixteen hours was considered a fair day's work during haying and harvest, and it was hardly considered polite to even hint at a possible twelve-hour day. You worked until the work was done.

Looking back upon those barn-raisings, husking bees, salt pork, and buckwheat pancakes makes me wonder if the present-day eight-hour agitator is having the fun and good health that we enjoyed. But even at that early date we had farmers with foresight, who understood men.

Forty-three years ago, John Morse, not far from Ann Arbor, nearly caused an epidemic of heart failure by introducing a ten-hour day for the men on his farm. One man was employed by the year to do nothing but chores, leaving the three or four men hired for the summer to work their ten hours in the field, with no chores but to care for their teams.

ALL sorts of disaster were predicted for John, though it was noticed that he was never behind with his work. Naturally he had the pick of the best help obtainable, and they did more work in the ten hours than was done elsewhere in eighteen, for they knew they would have their evenings to themselves and could rest up and be ready for the work next day, and were able to make social dates for a week ahead.

In turns, one man remained on the job Sundays to see that the horses were all properly cared for, and this arrangement gave each man two or three Sundays off every month to attend church and do his courting.

I worked with my father at the carpenter trade when a boy, and, by catering to the farmer, the house, barn, and repair work kept me busy and near home. The farmers got to know that I would slide off the roof or jump a fence (job) any time to give them a hand with their hay or other work when the rush was on, so I was seldom idle.

Farm papers and farm books got to be my regular mental diet, and every season, when the days began to lengthen and the sun get warmer, I I was sure to have a bad attack of what some call spring fever. You know what it is—that cootie sensation, when you itch to get out into the country for a sun bath, to see the trees budding out, to hear the bullfrogs chirp, and listen to the little birdlets warbling their little songlets as if they would split their little throatlets.

There have been only three seasons in forty-two years that I have missed being out in the harvest, and occasionally there was a chance for my wife and me to get a house on the place where I was working.

About twelve years ago we moved out to the Jones place near Clyde. I hired for the summer, with the option of making a yearly contract if both found it agreeable. We had an exceptionally good house, one that Butterene Jones had built for a married son, but the son was now in town and likely to stay there, in spite of high rent and gas bills, and no one could blame him.

We could get no land for a garden. Their own garden was large, and by doing the necessary work to keep it up we were privileged to use such cull vegetables as they themselves could not use or sell. My work hours were nearly to the old standard, so I had not much time to rest up on garden work. Our promised fresh-milk supply was fresh from the separator.

This was my wife's first experience in a community of complete strangers, and I expected to have to move back to town before the summer was over. But not so. After fifteen years of the ups and downs of married life I began to find out more things about Martha.

You know, or perhaps you don't, that distinction between the expression "hired man" and "employee." The term "hired man" dubs a man as "inferior," and is degrading in its social caste. No matter how good a man, what his intelligence, capabilities, or attainments may be, he and his family are looked down upon in the community, just because of his position as a "hired man." It is an old rural custom, and a regrettable one.

Whether it happened at a ladies aid or a tea fight, I never learned, but she came home one day looking surprised, and stunned—a sort of hurt, far-away look. I asked no questions, thinking it might only be the effects of a new kind of salad that she had been experimenting with. One thing I liked about Martha was that she would always try out those culinary experiments on herself before risking them on me, even though I did carry life insurance.

As that haunted look failed to wear off in the next couple of days, I took the goat by the horns, and demanded to know if it were a case for the divorce court or a doctor, and what the offense was. After looking over my six-foot of 182-pound manhood, she smiled a weary smile, and told me to keep my kimono on, that this was her affair and she would handle it in her own way. Then I tumbled to the situation. It also made me chuckle (to myself) for I could never get a scrap out of her, and I made up my mind to be in the balcony when the count came.

THEN that scared look gradually gave way to a set of the jaw and a glint in the eye—like you see in the face of the average farmer's wife on Monday morning, when a big family washing is in the offing and she has to head a bucket brigade to pack water from the barn to use in the tubs and a leaky old boiler—with a thirty-five-cent washboard on which to play the accompaniment, or the Dead March in S—S-oapsuds.

Again I was doomed to disappointment, for the scrap was barred by typhoid breaking out among the school children—brought in by a family of foreigners whom a neighboring farmer had secured from the bread line or in a financial bargain. While living in town, my wife had taken an extensive course in nursing (not financed by any too liberal wages one ever gets on the farm), and before the country health officers had got their neckties properly adjusted the two local doctors and Martha had the situation well in hand.

Those were three rather anxious weeks for everybody. The social scales were upset and very badly damaged during the excitement, but the reaction—the gushing patronage—did not meet with much enthusiasm from (CONTINUED ON PAGE 20)

The Letter Choate Wrote When He Sent Us This Article

"SIR: Please allow a subscriber and an old-time reader of FARM AND FIRESIDE the privilege of easing his mind. For some time I have been reading with much interest and amusement, different articles in your magazine embracing the hired man.

"As it will soon be open season for bagging and abusing this freak of nature, and before the hunt begins and while the scribes are still busy getting their branding irons and gaff hooks ready, something on the line of the enclosed sketch might not be out of place, and might supply something for the reader's thinking apparatus to work on. This is my first try at putting my ideas in writing, and no doubt a surgical operation will be necessary before turning the patient loose on the public. But the substance is here. My experience as a farm laborer dates back over forty years, principally in the northern part of Ohio, Michigan, and New York, with occasional and seasonal trips to the Middle and Western States.

"The names of course are changed, and the ideas are only mildly expressed, for I have worked with the best of farmers and under the best of conditions, and with the worst—at least I hope there are no worse. Some points I could have enlarged upon—for instance, the irregularity of meals. One of the best men I ever worked for had the habit, and supper was forthcoming any time from 7 P. M. to 9:30 P. M., though our usual working time was ten to eleven hours. It was simply a careless habit, but very aggravating to a hungry man after a steady day's work.

"In Ohio, during the war, I made it a point every summer and fall to hit the farm for haying and harvest, and sometimes for threshing, and though I found conditions somewhat improved for hired help, they are by no means what they should be.

"A national shortage of paper makes it imperative that I enclose stamps to have remains returned in case the operation proves fatal.

"Resp'ly, HARRY CHOATE."

I finally impressed it on him that he was out of tune with the orchestra; that he would have to play light on the minor keys and keep time with the tuning fork

My Visit to a Ferret Farm—and What I Learned From It

By Albert Sidney Gregg

IS IT true that ferrets eat herds of horses, and consume tons of milk and hundreds of bushels of wheat each season?"

"That's nothing," replied the superintendent of the ferret colony with a grin. "I'll tell you about their horse-eating habits after a while, but some other things must come first. Just look at those little fellows," he exclaimed, pointing to a row of pens filled with ferrets. "Don't you think they are a fine lot?"

Without waiting for me to say anything, he reached down into a pen of restless, wiggling ferrets, caught one by the tail, pulled it up, rested its forefeet on the edge of the cage, and slipped his hand along the ferret's body and got a firm grip just back of its ears, so it could not bite, and then held it out for closer inspection.

The ferret was about twelve inches in length, slim and muscular, with white fur, short legs, a tail five inches long, small ears, a pointed nose, pink eyes, and strong, sharp teeth set in powerful jaws.

In the pen were other ferrets with brown fur and brown eyes. They were exactly like the white ones, with the exception of the difference in color.

"Why are some of the ferrets brown?" I ventured to ask.

"The dark ones are not pure ferrets," replied the superintendent. "They are a cross between the white ferret, which is a native of Africa, and the fitch, which is a native of Europe. We call the brown ones fitch-ferrets, and the white ones albinos. In the old world the fitch is known as a polecat, although it is nothing like our common skunk. Ferrets belong to the weasel family, with the otter, badger, and skunk as distant relatives. They were known among the Romans who imported them for use in catching rabbits, just as they are still used in Europe and the United States where the law does not forbid."

Then, as we went slowly through the long ferret barn the superintendent told how the ferrets were raised and marketed.

"This barn," he said, "is one of three in this colony, and is similar to others used in this part of the counry. It is 200 feet long, 12 feet wide, with a 4-foot aisle, and has 200 pens, each pen being 4 feet long, 2 feet wide, and 2½ feet high. In place of being boarded up, the end next the aisle, as you see, is covered with netting made of heavy wire. That accounts for the noise the ferrets make as they walk along. They spring into the wire netting as if they were trying to escape, but that is not the case. They merely want to see what is coming. Besides the ferret barns we have a farm of 80 acres, a barn for the cows and horses and storage for wheat, and a silo for feed for the stock. There is also a cookhouse, 16x30 feet, two stories high, where food for the ferrets is prepared.

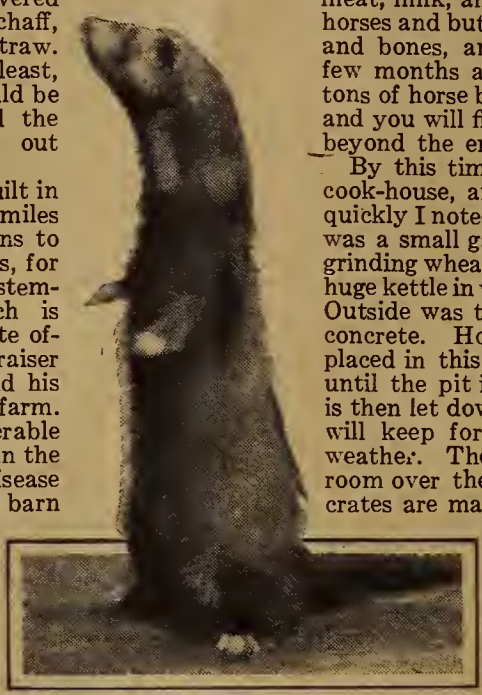
Back and forth we went through the barns, the guide meanwhile explaining the various appliances for taking care of the little animals. For instance, he pointed to a track overhead along which ran a car for carrying food and straw, and to the storage-room for straw in the attic of the barn, with an opening exactly in the middle, which facilitated the distribution of straw to the ferret boxes. As we walked along, the superintendent would occasionally pick up a young ferret and caress it—after getting a good grip on its neck. We came to a box containing a nest of real young ones. The mother was ready to fight. The guide held her in a corner with a feeding pan while he reached in and picked up one of her babies, and laid it in my hand. It was about the size of a white rat, and was only a few weeks old. Like a young kitten, its eyes were not yet open. A few steps further along the superintendent showed me some fine large males, or "bucks." He fondled them like he would kittens, and the big, lazy fellows seemed to enjoy his caresses.

Like everything else, ferret-farming is not hard for one who knows how. My guide had been in the business for fifteen years, and said he was learning something new every day.

"It costs very little to start in a small way," he said, "but the job is to keep going after you get started. Ferrets are very susceptible to disease, and must be watched very carefully, for once they begin ailing they do not last long, unless given prompt attention. Cleanliness is of the utmost importance. In each pen there should be a small nest box about a foot square, with a hole large enough for the ferrets to crawl in and out. Soft straw or dried grass should be used for bedding in this nest, and the main pen covered with clean earth or chaff, covered with clean straw. Then once a week, at least, the pen and nest should be carefully cleaned, and the feeding pan scalded out daily.

"Ferret barns are built in the country several miles from villages and towns to get away from the dogs, for ferrets will contract distemper from dogs, which is usually severe and quite often fatal. No ferret raiser will allow a dog around his barn, or even upon his farm. Small barns are preferable to one large barn, for in the case of distemper the disease can be confined to the barn in which the affected ferrets are located. If they were all in one barn, all would be endangered.

"Ferrets breed twice a year, the female carrying her young forty-two days. The breeding season is from the last of March to October. When rightly handled first litters generally run seven, eight, nine, and second litters three, four, and five. Occasionally a third litter will be produced in one year. The best results are obtained where yearlings are used.



Phoebe, an adept not only at gopher, rat, rabbit, and prairie-dog hunting, but also at parlor tricks, such as sitting up and begging for a bit of horse meat

Baby ferrets are born blind, and get their eyes open in about six weeks, after which they can be weaned. At four months of age they have their growth, and are ready to go after rabbits. At six months they are good for rats, but for ground squirrels, gophers, prairie dogs, mink, skunk, etc., only large old and strong ferrets should be used.

"We feed our ferrets on mush made of ground whole wheat, thinned with milk, and raw horse meat without salt, ground into sausage and rolled into little balls about an inch in diameter. If the mothers are not fed meat while nursing, they are liable to become bloodthirsty, and eat their young."

"How many ferrets can you raise in this colony in one season?" I asked.

"We have capacity here for 4,500 ferrets, but we will not have that many this season, for we lost a lot from distemper."

"You said you would tell me about the horse meat."

"All right. Here are some figures: A stock of 500 females and 100 males should yield 2,500 in one season. Breeding begins in March, and by Christmas the stock will be sold, so that we are not occupied with the ferrets for much more than six months, except as we take care of the breeders. On this basis a ferret colony of this size will consume 125 head of horses, the milk of 40 cows, and 300 bushels of wheat. The same holds true in the other colonies, so you can easily compute that the raising of 100,000 ferrets involves the consumption of large quantities of horse meat, milk, and wheat. We buy old horses and butcher them, sell the hide and bones, and pack the meat. A few months ago I sold off over two tons of horse bones that had piled up, and you will find another big pile out beyond the end of the barn."

By this time we had reached the cook-house, and as I glanced around quickly I noted the equipment. There was a small gasoline engine, mills for grinding wheat and horse meat, and a huge kettle in which to cook the mush. Outside was the meat pit, lined with concrete. Horse meat and ice are placed in this pit in alternate layers until the pit is full. A double cover is then let down, and meat so packed will keep for a week even in hot weather. Then we went to a little room over the cook-house where the crates are made for shipping the ferrets. Strips of thin boards were piled around, and at one side was a small buzz saw for cutting up the thin boards. There were crates of various sizes, ranging from a box for two or three ferrets up to half a dozen or a dozen.

"How do you provide food for the ferrets when you ship them a long distance?" I asked.

"Why, we attach a dinner in the form of a little lunch."

"Where do you sell your ferrets?"

"All over the country. Many of them are used on vessels and wharves, in mills, elevators, cellars, and by sportsmen, poultry breeders, and farmers. Cities and the country are overrun with rats, and the only way to get rid of the rats is to ferret them out so they can be killed. Ferrets are used for hunting rabbits, mink, and muskrat. Large rats infest wharves where they live on the refuse from cargoes, and where it is common for rats to get aboard ships by climbing along the mooring ropes. For this reason ferrets are part of the equipment of every vessel. It is their duty to keep the holds free of rats. Vessel owners send in orders for fifty and a hundred ferrets at a time.

We ship by express. It is quite common for a shipment valued at $1,500 to be made each day during the season, especially where several colonies use one shipping point. There is a village in this section where ferret raisers keep a printing office going, pile up money in the bank, and send out enough catalogues to help raise the rank of the post office and bring in free delivery.

"Young ferrets sell for $2.50 and $3 each, and are bought by all sorts of people besides the kind just indicated. Animal and bird dealers are large buyers. A real-estate man in Massachusetts does quite a business on the side buying ferrets and selling them to his neighbors. In a New York town an undertaker deals in ferrets.

"There is a professional rat catcher in Washington who buys ferrets from this colony, and uses them in keeping Uncle Sam's big buildings free of rats. A Kansas man bought ferrets and put them in a prairie dog town, and let them run. It is a safe guess that the prairie dogs moved to another climate. Ferrets are used for catching gophers and ground squirrels in California, and prairie dogs and ground squirrels in Texas and New Mexico. The demand is so extensive that we were obliged to return $900 one season because we could not fill the orders.

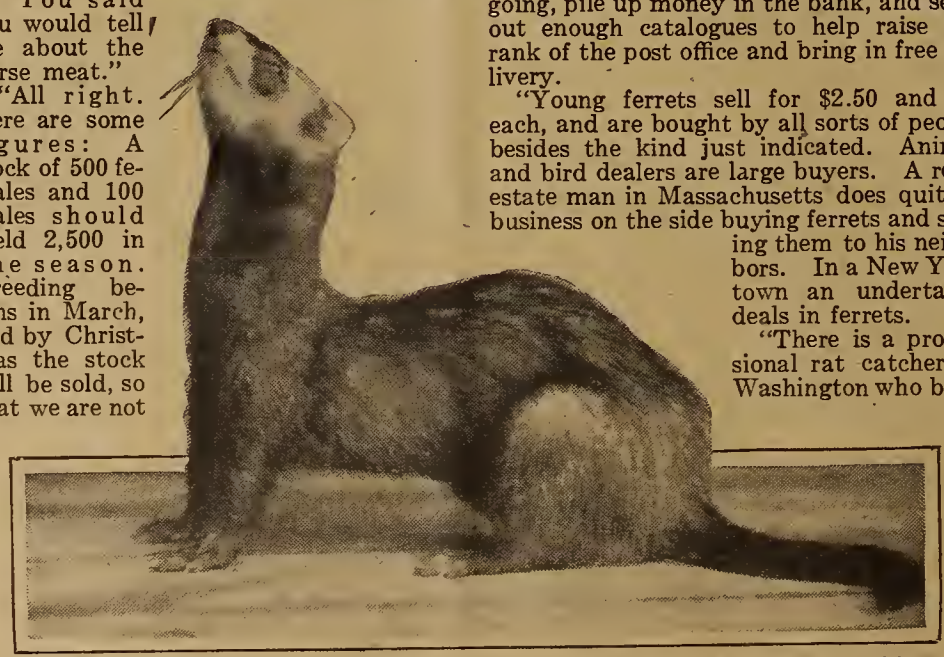
"A ferret is a fearless, bloodthirsty animal, very strong and capable of killing much larger animals. And yet it becomes very tame with handling, and quite often forms a strong attachment for its owner, and will follow him about like a dog or a kitten. When used for hunting, a ferret is carried in a bag slung over the hunter's shoulder with a strap. If a rabbit is chased into a hole the hunter sets the ferret on the ground with its head toward the opening, and the ferret at once enters the hole. As the rabbit leaves its hiding place it is caught or shot. Properly trained ferrets will stop when they come out of a hole, and wait to be taken up.

"A hunter tells this story: He put the ferret into a hole to drive a rabbit out, and after a while he heard the sounds of a terrific fight down in the hole. He hastily dug in, and found the ferret and a woodchuck in close embrace. The ferret had his game by the neck, and the woodchuck was fighting for his life.

"A large female ferret was crossing a hog yard, when she encountered an old sow who sniffed at her. Mrs. Ferret at once grabbed Mrs. Pig by the nose, and held on until the pig whirled around several times and shook the ferret loose. The ferret landed some distance away unhurt. It got right up and went on its way, but the pig did not sniff any more.

"One day a farmer's wife went out to gather the eggs. As she was about to put her hand into the box where a hen had laid an egg she caught sight of a rat in the box. Without much ado she slammed down the lid and put a brick on it. She had several ferrets at the house and went and got one. She raised the lid and dropped the ferret in with the rat, and then watched the fight through a crack. At once the rat backed into a corner and began to squeal, but that squeal did not affect the ferret a particle. He made just one leap, caught the rat by the back of the neck, and broke its back with a single crunch of its powerful jaws.

"Some farmers who keep a few ferrets make pets of them, and they soon learn to follow their masters about the place just like a kitten or a dog. A nest is provided, usually under the barn, and they are allowed to run loose. They will come to be fed when called. While this is a good plan to keep a barn free of rats, the ferrets must not be allowed to associate with the chickens, for they dearly love to cut the throat of a nice fat hen or a big, boastful rooster and suck their blood."



This is Jeremiah, an ancient and grizzled hunter. No rat has ever escaped him—and you can see from the way he holds his head how proud he feels over it

Beef Cattle Prospects

COMMENTING on beef-making conditions and prospects, John G. Imboden of Illinois says in "The Breeder's Gazette:"

"The live-stock industry in the past has been, and at present is and in the future will be, one of risk and uncertainty. There is always an element of chance in the pursuit of the industry that makes it interesting, and the outcome uncertain. The man who is looking for a sure thing, and is not willing to take a chance, would better stay out of the live-stock business. There is no 'best policy' for feeders to follow, either in regard to the kind of cattle to feed or the manner of feeding. A thing is not practical unless it can be accomplished with one's available means and resources. A policy that is practical and profitable for one feeder may be wholly impractical for another, and should not be considered. Because one feeder buys only top feeders, and feeds to a finish, is no evidence of itself that he is a better cattleman than his neighbor who buys a lower grade of cattle and does not feed to a finish."

We Long Island Growers Make Money by Marketing Our Own Ducks

By A. J. Hallock

Vice President, Farmers' Commission House, Inc., and the world's largest duck grower

As told to Andrew S. Wing

PROBABLY you, like most farmers everywhere, are thinking a good deal these days about marketing systems in their relation to your farm prices. Something surely is wrong somewhere when it costs so much to carry our crops to the market baskets of the world. Naturally, we farmers are most interested in making our own farms pay; but, of course, any farmer with sense wants to see the consumer get a square deal. We farmers are big consumers, too; don't ever forget that.

My own difficulties are those of a specialist; I am concerned principally with the economical *production* every year of about 130,000 ducks on my place at Speonk, Long Island. But I have been forced to study *marketing*, too; and were it not for the marketing system which we Long Island duck growers have built up together during the past six years, it is doubtful if any of us would be making money to-day. Certainly, our business would be on a very unstable basis, and very likely many would have been forced to quit. Thinking that our experience might be helpful and inspiring to other specialized farmers, as well as suggestive to the general farmer, I am telling our story for the readers of FARM AND FIRESIDE.

Starting in the commerical duck business in 1885 with a flock of Pekins, I have been in the business continuously until I now raise and market more ducklings every year than any other grower in the United States. Long Island is in many ways an ideal place for duck-raising. My farm, which consists of about 100 acres, lies between two fresh-water rivers that empty into Great South Bay. With New York City only 72 miles distant, a two-hour train ride, I have access to the nation's greatest duck market. For many years New York hotels and restaurants and Long Island roadhouses have featured Long Island duckling as a dish of great flavor and delicacy.

THE business of supplying the demand for freshly killed, tender young ducks had by 1915 grown to considerable proportions. Most of the duck growers (there were several whose businesses were nearly as large as mine) were making money. The only thorn in the flesh of our business was the instability of our market. We had an organization—the Long Island Duck Growers' Association — through which we tried to keep our product to a standard quality; we tried also to regulate our shipping so as to avoid flooding the market. But this organization, although it was fairly successful, did not make a steady, even market for our ducks. It was the old, old story of the commission men paying generous prices while the demand was brisk, and laying off and waiting for the other fellow to act when the market was dull and the quantity coming in greater than the trade would consume. Market gluts resulted.

Understand, I am not blaming the commission men; they simply were afraid to take the risk of putting the surplus ducks into storage. Freezing any kind of food products is always more or less of a gamble; naturally, the commission men protected themselves by buying their ducks for storage at the very lowest figure.

The real trouble was that no one commission house was a large enough handler of ducks to "make the market." When I say "make the market," I say it advisedly, for I know that it is practically impossible for any one firm or agency actually to set the price: general market conditions, supply and demand, the price of other poultry and game, the time of year, and a number of other factors enter into making the price of ducks. However, when the demand is slow, and when there is a large surplus coming in every day, market prices will go all to pieces unless there is the steadying influence of some large buyer who isn't afraid to buy and put the stuff into storage. The Farmers' Commission House, which we duck growers started in 1915, supplies that steadying influence.

This marketing principle holds good with practically all farm products.

It is of course particularly true of perishable products, which must be marketed when ripe, but it applies also to wheat, corn, beans, oranges, apples, prunes, etc. When markets glut, prices are bound to fall, and they will hit the bottom unless there is some strong buying agency in the field that can absorb the surplus and store it until it really is needed. This stabilizing influence is one of the greatest functions of the California Fruit Growers' Exchange; and it is, I believe, what the U. S. Grain Growers, Inc., and the other newer coöperative farmers' marketing associations are planning to apply.

It had been evident for some time that the Long Island Duck Growers' Association did not give us the complete market service needed. So in April, 1915, a group of the larger growers got together and organized a selling agency of our own, which we called the Farmers' Commission House, Inc. A logical opening was offered through the retirement of one of the old commission houses which had been rather a large handler of ducks.

We were fortunate in securing the services of a veteran commission man, Mr. Max Mayer. He was made president and general manager, and it has been through his wide experience and able management that the scheme has been enabled to succeed. The authorized capitalization was $40,000 at first, most of which was supplied by the thirty growers who were among the original incorporators. The organization plan is that of a regular corporation, although in its operation it serves the Long Island growers in a coöperative way, just as the pure coöperatives do.

THE business is run in the same way as any other commission house, except that the grower is favored wherever possible. The regular commission of five per cent is charged all shippers, whether they are stockholders or not. We compete on regular terms with all the other New York commission houses, but have been able, through efficient service, to secure most of the Long Island duck business. In addition, we handle other poultry, lambs, calves, and eggs; but it's mostly ducks, for they are our specialty. We have developed quite a business in Maryland turkeys. We now have fifty Long Island growers who are stockholders. A few growers do not ship to us, but we handle about 90 per cent of the Long Island dressed-duck business—enough to keep the market stable.

The first year we had to put a lot of ducks in storage in order to keep up the market. We met a lot of opposition from all sides. Competition is always keen in a large wholesale produce market. It is "dog eat dog," a continual fight for existence. Mr. Mayer had been in the game nearly fifty years, and told us to "sit tight." We did. The first year the Farmers' Commission House lost money; but we had won our fight, nevertheless. We did a million-dollar business that first year; we had put our hat into the ring, and meant to keep it there.

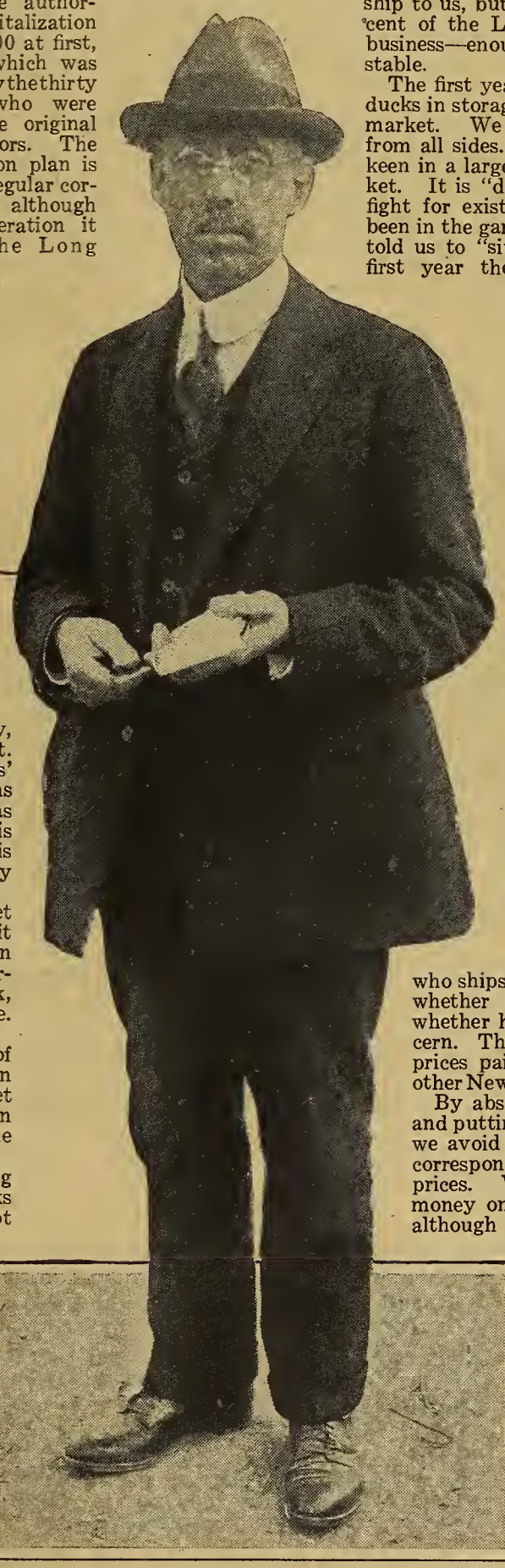
THE Farmers' Commission House has made money practically every year since the first. It looks like we would do a two-million-dollar business in 1921—just double what we did in 1915. It has been necessary to increase our capitalization to $200,000. Dividends average 10 per cent a year; that is worth while, but it is the least important part of the whole business, so far as the Long Island duck industry is concerned. The important thing is that, through our own commission house, we have put the industry on a stable, businesslike basis. It benefits every grower who ships to New York, no matter whether he is a stockholder, or whether he even ships to our concern. The prices we pay are the prices paid by practically all the other New York commission houses.

By absorbing the surplus ducks and putting them into cold storage, we avoid market gluts, with their corresponding periods of depressed prices. We do not aim to make money on our storage operations, although occasionally we do. All we count on is breaking even on our frozen ducks, preventing gluts, and, at the same time, having an ample supply for the trade at all times. Frozen ducks, provided they are prime when frozen, are really just about as good as fresh ones. It takes an expert to tell the difference after they are cooked. The greatest difficulty with ducks, as with all farm products, is to equalize supply with demand. Most of the Eastern ducks come in during the summer and fall, while the demand for them is very brisk during the winter months. It is then that our cold-storage ducks are useful. Most commission houses are cautious when it comes to freezing any meats: they freeze only when they are forced to, or when prices seem very low. We do it as a regular thing, because we know the life of our industry depends on it.

You might be interested in hearing just what happens to one of my ducklings from the time it breaks [CONTINUED ON PAGE 15]

The World's Largest Duck Grower

THIS is A. J. Hallock of Speonk, Long Island, the author of this article and the largest duck grower in the world. To him, more than to any other man, is due the credit for putting the duck growers' business on a money-making basis. He tells here how it was done. You may find a lot of useful ideas in what he says. Incidentally, he started with nothing and fought his way to success. The Editor.



How Bad Grading Cuts Your Profits

WHEN a man has done one thing well for half a century, he usually has something worth while to say about it. Max Mayer, president and general manager of the Farmers' Commission House, Inc., the farmers' firm that sells millions of dollars' worth of ducks in New York City every year, has been in the commission business fifty years. Mr. Mayer is seventy-two, but as active as many a man at forty. He is on the job every market day. I talked to him recently about marketing farm products. This is what he said:

"Farmers will never get anywhere as long as they market as individuals. Few farmers, especially poultrymen, fruit growers, and market gardeners, have a volume of production sufficient to enable them to grade their own products correctly. One dirty egg, one scabby apple, one scrawny duck, will lower the grade, and therefore the price, of a whole case. A coöperative shipping association can grade things *right*.

"Too many farmers underestimate the importance of grading. I used to handle veal calves. They would arrive in the greatest state of non-uniformity of quality and size. Yet the farmer who shipped an underfed scrub would kick when he didn't get as big a price as the man who shipped a prime fat veal.

"We have had difficulty in getting some of the Long Island duck growers to understand that *every* barrel of ducks marked No. 1 must contain *only* No. 1 ducks. But we kept after them until now their duck shipments are graded according to market standards. The Farmers' Commission House took trouble to explain this to growers; most commission houses wouldn't. They would simply dock the grower and let him kick.

"That is one of the reasons I know it pays farmers to have their own coöperative marketing associations. I can see no reason why every city of any size in the United States could not support similar farmers' selling agencies."

ANDREW S. WING.

Doc Delaney Says:

"Sometimes city folks don't think farmers has got any brains till they try it themselves, then they think maybe, after all, they better have a X-ray made"

By Homer Croy

Illustrations by Bert N. Salg

Another view of Doc Delaney himself

OF COURSE, I don't pretend to be any authority on farming like I am on horse-doctoring, but a brainy man can't go through life and not know something outside of a severe case of heaves or aggravated fistula, which I consider more serious, because when an animal gets a bad case of the latter you had just as well try to find some mover you never expect to see again.

But what makes me laugh is the city folks who don't know a harrow from a carpet stretcher, and who, when they get sore at the boss because they don't get a raise Xmas like they expected, decide to throw it all up and take up something easy like farming.

They think that just because they can add up a col. of figgures correctly, and esp. if they use a machine, that all they got to do to get rich is to move out to the country. They do, and the next you hear of them is when somebody is getting up a shower for them.

All they know about farming is the pictures they see on the packages down at the feed store, and they think they will have to carry their string beans in on a stretcher; and when they raise them, all they got is the former, and, instead of having to use a stretcher or hanging them over their back like the man carrying the fish that gives the emulsion, they bring them in in the back of their watch or maybe on a measuring spoon, because the man that drawed the pictures took somebody's word for it.

When they get ready to go to the country, they buy a straw hat like the farmers in the film "Way Down East," and they think with *their* brains it won't take long untill they can retire; but pretty soon they find they ain't any more than retired till the family alarm clock goes off in their ear. They jump up and dang the clock good and propper till they light a match and it is running ok.

They think they can get it out of books, and with their wonderful brains they soon won't have nothing to worry about except some airplane going by and dropping a monkeyrench, but pretty soon they begin to think that maybe what they thought was brains was just pure lard.

They lay in a supply of books to read after they get the day's work done, and invite all their city friends to come out and spend a month with them and go back to the city feeling like a fighting cock.

"—And the chickens that ain't killed just seem to die to be contrary"

They think the world is like Dr. Frank Crane says it is, and all they got to do is just to plant the seed and wait for it to grow; but pretty soon every time the tel. rings, or when somebody from the city writes that they are coming, the neighbors has got to come running in with a bottle of smelling salt or maybe throw a bucket of water on them. The only use they got for books now is to prop up the windows with, and the hens is using the hats as nests.

"A farm is like any other bus.," they say before they leave. "It can and should be operated on a 8 hr. skedule;" and they try it, and find they ain't hardly got the chores done till the time is up and the weeds has got the corn by the throat.

PRETTY soon every time they see a lantern they pick it up and start to feed the hogs.

In the morning when they go out to plow the corn, if they don't get soaked with dew till they look as if they had been trying to learn to swim scientifically they don't think the rest of the day is worth hitching up for. And the long evenings they expected to be doing so much reading or going to the dances, they got to clean out the pig pens, build chicken coops, or saw up the R. R. ties and the fence they have tore down and hauled over after night-time.

The only consecutive reading they have done since they come out is the weather report, and that is usually a c'ple of days late, so that it don't carry no great kick to it. And if they went to a dance they wouldn't get clear around till they would begin to snore, and before the 2nd encore they would have to be drug out to the barn or the festivities would be broke up.

They think [CONTINUED ON PAGE 19]

The Great Hinckley Hunt

The true story of how 600 Ohio farmers spent Christmas Eve tracking down and slaying the wild beasts that roamed the Rocky River Valley 103 years ago

By S. P. Porter

A farmer of Medina County, Ohio

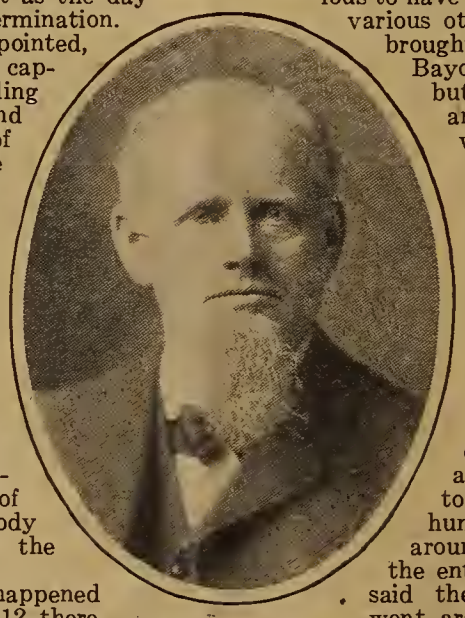
THIS story of the wonderfully executed and successful hunt of wild animals in Hinckley Township, Medina County, Ohio, which took place December 24, 1818, was told me by my grandfather, one of the six hundred men who took part in that historical event.

Hinckley Township is rather rugged, made so in the eastern half by Rocky River crossing the township twice east of the center. Hinckley and the surrounding country, with its many rocky ledges and caves, were a great rendezvous for all wild animals with which Ohio abounded in the early days. Settlers here, previous to 1818, experienced much trouble through the loss of hogs and sheep, first and last being tidbits prized by the black bear and wolf packs, respectively.

This loss of domestic animals through these two forest rovers had reached such a stage by the fall of 1818 that the settlers admitted something must be done at once or they would soon be stripped of the meat and wool that meant food and clothing to them.

So the farmers got together and discussed various plans to put a stop to it. The plan most favored, and which my grandfather urged, together with others, was to stage a monster hunt—surround the township with crack hunters, drive all animals toward the center, killing any that tried to break the lines. This plan ripened into reality, and December 24th was set as the day to wage the war of extermination.

Committees were appointed, who in turn appointed captains and a commanding officer, who had command of the entire battalion of hunters. Trees were blazed upon a half-mile circle at the center of the township, as the converging point for the line of hunters. Able-bodied men and large boys joining in the hunt were to assemble as follows: Those from sections to the north along the north line of the township—the same plan applied on all four sides of the township. Everybody had orders to be on the ground by daylight.



This is Mr. Porter

As this great event happened soon after the war of 1812, there was no lack of officers who knew just how to handle large bodies of men. Old army muskets were the most common weapons, but as there were not enough to supply the big crowd of men anxious to have a hand in the big hunt, various other fighting irons were brought into service.

Bayonets fixed to large poles, butcher knives, hatchets, and even common axes were among the weapons carried by the men and boys who followed up the main line.

Over six hundred men and boys were on the lines by sunrise of the 24th, ready and waiting to push forward and battle the common enemy. The wait wasn't long, for soon the commanding officers gave the word to advance. The plan was to pass the order from one hunter to another, clear around the line that encircled the entire township, and it is said the words of command went around this twenty-mile human telephone line in less than one minute.

In the advance line were the best hunters with the best guns, followed up by those of less experience. For some time after the advance signal was fired, the first line didn't get to fire once, as the noise raised by the forming lines gave the animals early notice that something was up, and they had fled from the lines toward the center.

THERE was some fear that if this stampede toward the center continued there would be so much game rounded up at the last that some might break through the line in spite of every precaution, but as the line advanced this fear was dispelled somewhat, as now and then a stray wolf or bear attempted to break back. But it was virtually a dead line through which no animal, however sly or swift, could pass. As they advanced, the attempts to break through became more frequent, especially by deer, which were killed by the dozen and, though a considerable number, aided by their swiftness, did pass, over a hundred deer were killed before the half-mile limit was reached.

When the half-mile circle, previously marked out by blazed trees, was reached, a halt was called. Within this circle were some of the roughest places yet found, and many a fallen tree and brush pile afforded a hiding place for wild animals, and many were found there [CONTINUED ON PAGE 24]

Why Should You Worry About Whether Your Farm is Fertile?

By Edwin E. Slosson

A CITY chap who was showing his farmer uncle the sights of New York took him to Central Park, where he tried to astonish him by saying:

"This land is worth $500,000 an acre."

The old man dug his toe in the ground, kicked out a clod, broke it open, looked at it, spat on it, squeezed it in his hand, and said:

"Don't you believe it; 'tain't worth $10 an acre. Mighty poor soil, I call it."

Both were right.

The layman regards the soil as a platform, or anchoring place, on which to set plants. He measures its value by its *area*, without considering its *contents*, which is as absurd as to estimate a man's wealth by the size of his safe.

The modern farmer realizes that the soil is a laboratory for the production of plant food, and he ordinarily takes more pains to provide a balanced ration for it than he does for his family. Of course, the necessity of feeding the soil has been known ever since man began to settle down, and the ancient methods of maintaining its fertility, though discovered accidentally and followed blindly, were sound. Virgil, who, like Liberty Hyde Bailey, was fond of publishing agricultural bulletins in poetry, wrote two thousand years ago:

But sweet vicissitudes of rest and toil
Make easy labor and renew the soil,
Yet sprinkle sordid ashes all around
And load with fatt'ning dung the fallow soil.

The ashes supplied the potash and the dung the nitrate and phosphate.

A plant requires certain chemical elements for its growth, and all of these must be within reach of its rootlets, for it will accept no substitutes.

Out of the eighty chemical elements, only thirteen are necessary for crops. Four of these are gases: Hydrogen, oxygen, nitrogen, and chlorine. Five are metals: Potassium, magnesium, calcium, iron, and sodium. Four are non-metallic solids: Carbon, sulphur, phosphorus, and silicon. Three of these, hydrogen, oxygen, and carbon, making up the bulk of the plant, are obtainable without limit from the air and water. The other ten, in the form of salts, are dissolved in the water that is sucked up from the soil. The quantity needed by the plant is so small, and the quantity contained in the soil is so great, that ordinarily we need not bother about the supply except in case of three of them. They are nitrogen, potassium, and phosphorus. These would be useless or fatal to plant life in the elemental form, but fixed in neutral salt they are essential plant foods.

A TON of wheat takes away from the soil about 47 pounds of nitrogen, 18 pounds of phosphoric acid, and 12 pounds of potash. If the farmer does not restore this much to his field every year, he is drawing upon his capital, and this must lead to bankruptcy in the long run.

So much is easy to see, but actually the question is extremely complicated. When the German chemist, Justus von Liebig, pointed out in 1840 the possibility of maintaining soil fertility by the application of chemicals, it seemed at first as though the question were practically solved. Chemists assumed that all they had to do was to analyze the soil and analyze the crop, and from this figure out, as easily as balancing a bank book, just how much of each ingredient would have to be restored to the soil every year. But somehow it did not work out that way, and the practical agriculturist, finding that the formulas did not fit his farm, sneered at the professors, and whenever they cited Liebig to him he irreverently transposed the syllables of the name.

Plants obey the injunction of Tennyson, and rise on the stepping stones of their dead selves to higher things. Each successive generation lives on what is left of the last in the soil, plus what it adds from the air and sunshine. As soon as a leaf or a tree trunk falls to the ground it is taken in charge by a wrecking crew composed of millions of microscopic organisms ("bugs"), who proceed to break it up into its parts so these can be used for building a new edifice. The process is called "rotting," and the product, the black, gummy stuff of a fertile soil, is called "humus."

THE plants—that is, the higher plants—are not able to live on their own proteids, as the animals are. But there are lower plants, certain kinds of bacteria, that can break up the big proteids and reduce the nitrogen in them to ammonia or ammonia-like compounds. Having done this, they stop and turn over the job to another set of bacteria to be carried through the next step. For you must know that soil society is as complex and specialized as that above ground, and the tiniest bacterium would die rather than violate the union rules. The second set of bacteria changes the ammonia over to nitrites, and then a third set, the Amalgamated Union of Nitrate Workers, steps in and completes the process of oxidation with an efficiency that Ostwald might envy, for 96 per cent of the ammonia of the soil is converted into nitrates.

But if the conditions are not just right, if the food is insufficient or unwholesome, or if the air that circulates through the soil is contaminated with poison gases, the bacteria go on a strike. The farmer, not seeing the thing from the standpoint of the bacteria, says the soil is "sick," and he proceeds to doctor it according to his own notion of what ails it. First, perhaps, he tries running in strike breakers. He goes to one of the firms that makes a business of supplying nitrogen-fixing bacteria from the scabs or nodules of the clover roots, and scatters these colonies over the field. But if the living conditions remain bad the newcomers will soon quit work too, and the farmer loses his money. If he is wise, then, he will remedy the conditions, putting a better ventilation system in his soil, or killing off the tiny bandits that prey upon the peaceful bacteria engaged in the nitrogen industry. It is not an easy job that the farmer has in keeping billions of billions of subterranean servants contented and working together, but if he does not succeed, at this he wastes his seed and labor.

Long before the discovery of the nitrogen-fixing bacteria, the custom prevailed of sowing pea-like plants every third year, and then plowing them under to enrich the soil. But such local supplies were always inadequate, and as soon as deposits of fertilizers were discovered anywhere in the world they were drawn upon. The richest of these was the Chincha Islands, off the coast of Peru, where millions of penguins and pelicans had lived in a most untidy manner for untold centuries. The guano composed of the excrement of the birds, mixed with the remains of dead birds and the fishes they fed upon, was piled up to a depth of 120 feet. From this Isle of Penguins a billion dollars' worth of guano was taken and the deposit soon exhausted.

Then the attention of the world was directed to the mainland of Peru and Chile, where similar guano deposits had been accumulated, and, not being washed away on account of the lack of rain, had been deposited as sodium nitrate, or saltpeter. These beds were discovered by a German, Taddeo Haenke, in 1809; but it was not until the last quarter of the century that the nitrates came into common use as a fertilizer. Since then more than 53,000,000 tons have been taken out of these beds, and the exportation has risen to a rate of 2,500,000 to 3,000,000 tons a year.

How much longer they will last is a matter of opinion, and opinion is largely influenced by whether you have your money invested in Chilean nitrate stock or in one of the new synthetic processes of making nitrates. The U. S. Department of Agriculture says the nitrate beds will be exhausted in a few years.

ANYHOW, the South American beds cannot long supply the world's need of nitrates, and we shall some time be starving unless creative chemistry comes to the rescue. In 1898 Sir William Crookes—the discoverer of the "Crookes tubes," the radiometer, and radiant matter—startled the British Association for the Advancement of Science by declaring that the world was nearing the limit of wheat production, and that by 1931 the bread eaters, the Caucasians, would have to turn to other grains or restrict their population while the rice and millet eaters of Asia would continue to increase. Sir William was laughed at then as a sensationalist. He was, but his sensations were apt to prove true, and it is already evident that he was too near right for comfort. Before we were halfway to the date he set we had two wheatless days a week, though that was because we persisted in shooting nitrates into the air. The area-producing wheat was, by decades:

THE WHEAT FIELDS OF THE WORLD

	Acres
1881-1890	192,000,000
1890-1900	211,000,000
1900-1910	242,000,000
Probable limit	300,000,000

If 300,000,000 acres can be brought under cultivation for wheat, and the average yield raised to 20 bushels to the acre, that will give enough to feed a billion people, if they eat six bushels a year, as do the English. Whether this maximum is correct or not there is evidently some limit to the area which has suitable soil and climate for growing wheat, so we are ultimately thrown back upon Crookes' solution of the problem; that is, we must increase the yield per acre, and this can only be done by the use of fertilizers, and especially by the fixation of atmospheric nitrogen.

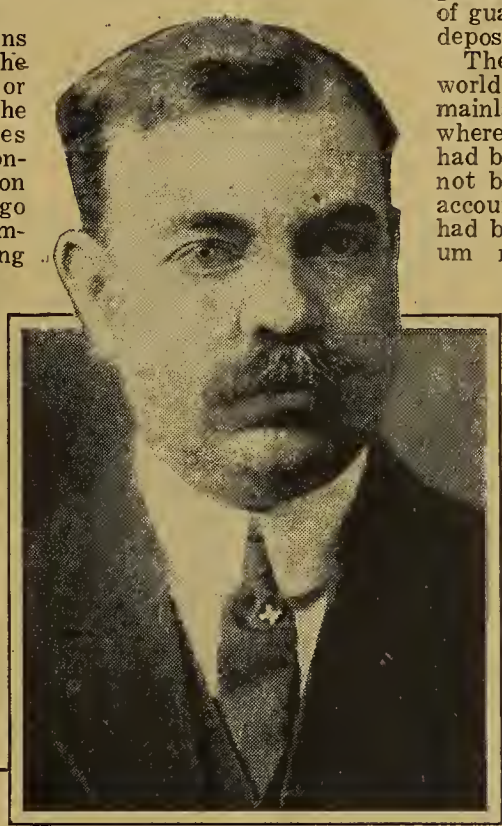
CROOKES estimated the average yield of wheat at 12.7 bushels to the acre, which is more than it is in the new lands of the United States, Australia, and Russia, but less than in Europe, where the soil is well fed. What can be done to increase the yield may be seen from these figures:

GAIN IN THE YIELD OF WHEAT IN BUSHELS PER ACRE

	1889-90	*1913*
Germany	19	35
Belgium	30	35
France	17	20
United Kingdom	28	32
United States	12	15

The greatest gain was made in Germany, and we see a reason for it in the fact that the German importation of Chilean saltpeter was 55,000 tons in 1880 and 747,000 tons in 1913. In potatoes, too, Germany gets twice as big a crop from the same ground as we do—223 bushels per acre instead of our 113 bushels. But the United States uses on the average only 28 pounds of fertilizer per acre, while Europe uses 200.

It is clear that we cannot rely upon Chile, but must make nitrates for ourselves, as Germany had to in wartime. The new methods of fixing the free nitrogen from the air is a new business in this country, and our chief reliance so far has been the coke ovens. When coal is heated in retorts or ovens for making coke or gas, a lot of ammonia comes off with the other products of decomposition, and is caught in the sulphuric acid used to wash the gas, as ammonium sulphate. Our American coke makers have been in the habit of letting this escape [CONTINUED ON PAGE 18]



Picture by courtesy of The Century Company

This is Mr. Slosson, the author of this article, who sums up what he has to say in these words

"FOR the last three hundred years the American people have been living on the unearned increment of the unoccupied land. But now that all our land has been staked out in homesteads and we cannot turn to new soil when we have used up the old, we must learn, as the older races have learned, how to keep up the supply of plant food. Only in this way can our population increase and prosper. As we have seen, the phosphate question need not bother us, and we can see our way clear toward solving the nitrate question. We gave the Government $20,000,000 to experiment on the production of nitrates from the air, and the results will serve for fields as well as firearms. But the question of an independent supply of cheap potash is still unsolved."

Mr. Slosson is a native of Kansas, spent many years in farming and agricultural work, and is one of those rare persons—a real scientist who has not lost the human touch, who can talk interestingly to us in our own language, about scientific things.

He was born at Albany, Kansas, and married Miss May Preston of Centralia, Kansas. He is a graduate of Kansas University and of the University of Chicago. He was for many years professor of chemistry and chemist of the Wyoming Agricultural Experiment Station. His home now is in New York. THE EDITOR.

What Coöperation Has Done for Our County

By C. C. Conger, Jr.

Of Penn Laird, Virginia

TIRED of buying everything at the merchant's price and selling everything on the same terms, the farmers of Pleasant Valley, Virginia, a little village centrally located in Rockingham County, decided, some six or seven years ago, to do some shopping on their own hook. This little band of farmers, a mere handful in number, called a meeting of all farmers in the community, to be held in the town hall. While the attendance was not large at this first meeting, enthusiasm ran high, both outside the building and within, for an anxious crowd gathered outside to learn the meaning of this unusual gathering.

This tiny band of progressive farmers met for business, and did business. The meeting closed with a brand-new organization for Rockingham County, namely—The Pleasant Valley Farmers' Club. This newly-organized farmers' club invited neighboring farmers to become members, and ere long the club was growing by leaps and bounds. At first the membership fee was 25 cents, for which a card was given that many merchants throughout the county honored to the extent of a 10 per cent cut in prices.

We now had a full set of officers, including president, vice president, secretary, treasurer, and buying committee. The club was growing rapidly, and we were buying all such things as feed, coal, binder twine, grass seed, fertilizer, lime, etc., coöperatively in carload lots, and at considerable saving. Soon this coöperative spirit began to spread, first one village organizing a farmers' club and then another, until in a short time entire Rockingham County was locally organized. These farmers' clubs met monthly to transact business and collect orders for farm necessities.

This is County Agent Charles W. Wampler, who has been working with the farmers in Rockingham County for fifteen years, and who adds his endorsement to what Mr. Conger says about them

"Why not join the entire county in one solid organization," someone said, "and buy as a great unit in still larger quantities and at still lower prices."

THE suggestion was scarcely made before it was accepted. Rockingham County became one giant farmers' club, with its many branches remaining as before, for sake of convenience in transacting business. Today we actually breathe the air of coöperation, so strongly does it figure in our daily life. Our fertilizer business alone amounts to thousands of tons yearly, all given in one giant order. It is hardly necessary to say that we get it at a low price. Coal, feed, grass seed, binder twine, etc., are bought coöperatively, also, at a saving equally as great.

Nor does coöperation end here. Practically every farmer in the county is linked up with his neighbor farmers by a strictly coöperative telephone system that is giving perfect satisfaction, and at extremely low cost. Community creameries dot the county with great swarms of trucks hurrying into them every morning, carrying milk and cream from purebred dairy cows that were introduced coöperatively. These creameries are operated coöperatively, and their products ofttimes marketed coöperatively.

Coöperation helped to make our mud roads into ideal macadam pikes. With better roads came more and better churches, schools, bridges, stores, etc. Coöperation figures in our everyday life even to the small details. We live, speak, act, and transact business for each other. We feel that we are one great family that must be respected, and I am frank to say we are respected. We generally get what we go after, and the secret is we pull together.

NOTE: I think you will agree that the above is a very outstanding example of a successful coöperative county organization. It seems that Mr. Conger understated the case, if anything, judging from what Mr. Charles W. Wampler, county agent of Rockingham County, has to say:

"After reading Mr. Conger's article I thought of the story of the Irishman who had been in the West and witnessed several cyclones. When he returned home his brother told him he had been reading about cyclones, and wanted to know if everything that he had read was true. Without asking what his brother had read, Mike promptly answered:

"'It's all absolutely true, because you can't tell a lie on a cyclone.'

"After working with the farmers of Rockingham County for about fifteen years I feel that it is almost impossible to tell anything too good about them.

"Mr. Conger's article, however, might lead one to believe that the amount of business done coöperatively through the farmers' clubs is larger than it really is. On the other hand, there are coöperative concerns, such as fire insurance companies, that are doing a wonderful business, which Mr. Conger did not mention. It is, of course, not to be taken that all the coöperation among the farmers of this county is the result of the club which started at Pleasant Valley.

"This little club was really the beginning of what is now the Federation of Farmers' Clubs in Rockingham County, which has a membership of 1,000 members. Practically all of the 3,600 farmers in Rockingham County are connected with at least one coöperative activity, and most of them with several.

"But what is of most importance is the coöperative spirit, or what might be termed the brotherly love, that exists among them. This largely explains why land in Rockingham County sells at $200 to $300 per acre, with some of it going even as high as $400 and $500, when land of the same quality can be bought for much less elsewhere."

Which seems to leave the matter without need of further comment. THE EDITOR.

Unless the agricultural interests of this country learn the lesson and the vision of coöperation, the tillers of the soil will be reduced to a state of peasantry like that which has characterized Russia for hundreds of years. DR. H. A. MORGAN,
President University of Tennessee.

One of the most frivolous women I know becomes serious occasionally and talks high-minded. And in her high-minded moods she is tremendously funny.
E. W. Howe's Monthly.

Night choring loses its unpleasantness, as well as its danger, when you have your barn safely wired for electricity

It Paid Us to Put Lights in Our Barn

By Clarence M. Baker of Ohio

WHEN we installed our home lighting plant we did not immediately put electric lights in the barn, for we felt that chores ought to be done during daylight, and that electric lights would not be used frequently enough in the barn to justify the expense of their installation.

However, we kept wiring additional buildings, including the chicken house, hog barn, summer kitchen, and so, finally, the barn was wired, including the feed-rooms and stables. Now, turning a switch just inside the entry door will light the feed alley; additional switches were placed at doors entering into the stables from the feeding alleys, so that the stables on either side of the alley can be lighted as desired. Another switch turns on the light in the hayloft. It is possible also to turn on the lights from either end of the barn entrance, so that in bringing livestock in from the pasture, or the back way, light may be had at any time.

By using this succession of switches, economy is secured; for if one is working in but one side of the stable, only one light is needed. If the entire stable is lighted on one circuit, three or four lights which are not required will often be burning. Economy must be practiced in the farm lighting plant; switches are cheaper than storage batteries, and much more efficient.

Electric lights in the hayloft are good insurance protection. Climbing into or down out of the hayloft in the dark is dangerous, and of course there is always the fire risk. Then it is infinitely easier to work under electric lights than to grope about in the darkness.

I BELIEVE that our livestock appreciates electric lights as well as we do. Harnessing horses is an easy job under electric lights, and plenty of light makes it much pleasanter to take care of young calves or pigs. We have found that by hanging a small 10-watt lamp over a sow at farrowing time much of the danger of losing pigs is eliminated. My idea is that sows lie on their pigs because they cannot see them, but with the light hanging directly over them they are more careful and considerate of their young.

I have mentioned only a few of the many uses we make of our electricity. New uses will constantly suggest themselves to the ingenious farmer.

We Have a Pleasant Surprise in Store for You

THE January issue of FARM AND FIRESIDE will come to you in a new and more convenient size. There were many good reasons for making this change, among them being that the magazine will reach you in much better shape through the mail, the pages will be set in more readable type, and the magazine as a whole will be more easily handled by you in reading. This is but one more of the many things we have done in the last three years to make FARM AND FIRESIDE the finest, most useful, interesting, attractive, and practical national farm magazine you can buy. What we lose in the size of the individual page will be more than made up by the additional pages that we will print in the new size. I sincerely hope you will like the change, and I believe you will.

George Martin
Editor

Books We've Received

Helen of the Old House, a novel by Harold Bell Wright. Published by D. Appleton & Company, New York City. Price, $2.

Daughter of the Sun, a novel by Quién Sabe. Published by Charles Scribner's Sons, 597 Fifth Avenue, New York City. Price, $1.75.

Real Stuff, a novel by Katharine Haviland Taylor, author of "The Dearest Ache," which appeared in the March FARM ANN FIRESINE. Published by Harcourt, Brace & Co., 1 West Forty-seventh St., New York City. Price, $1.75.

Efficient Marketing for Agriculture, by Theodore Macklin, Ph. D., professor of Agricultural Economics in the University of Wisconsin. Published by The MacMillan Company, New York City. Price, $2.

Nut Growing, by Robert T. Morris. Published by The MacMillan Company, New York City. Price, $2.50.

Face to Face With Great Musicians (first group), by Charles D. Isaacson, with an introduction by Leopold Godowsky. Published by D. Appleton and Company, New York City. Price, $1.75.

The Mysterious Rifleman, a novel for boys by Everett T. Tomlinson. Published by D. Appleton and Company, New York City. Price, $1.75.

Catch Crops We Southern Farmers Find to Be the Best Hog Feeds

By J. F. Duggar

Corresponding Editor of Farm and Fireside on Southern Crops and Soils and Director of the Alabama Experiment Station

"WHAT one crop should I depend upon as a chief substitute for corn in raising hogs in the South?" asked a Western farmer who was planning to move to the South, where he wisely intended to make hogs his principal sale produce.

"Peanuts," answered the experiment station worker he consulted, who hastened to add that there are parts of the South where "Soy beans" is the more correct answer. Indeed, either of these legumes, with corn, serve as the principal supports of the recently developed commercial hog-raising industry in the Cotton Belt.

In either system, however, whether it be peanut hog-farming or pork production on soy beans and corn, the wise farmer also finds a place for pasture and other special hog crops. Chief among these that thus far have played a minor part in Southern pork-making are cowpeas, sweet potatoes, and chufas.

Before we attempt to weave these and other forage crops into a cropping system intended to furnish hog feed throughout the greater part of the year, let us see what sort of a report they have made when fed in experiments to measure their practical value.

In Alabama, shotes were confined in hurdles on a field of ripening cowpeas growing on poor sandy soil. No other feed was supplied. The waste was considerable, as the hogs knocked out many of the ripe peas, which, because of rainfall, sprouted, and were thus lost as feed. However, they gained 122½ pounds of live weight per acre of crop.

In a second test shotes were hurdled on a field of ripening cowpeas, but also supplied with a partial ration of corn. If five pounds of this corn produced one pound of growth—and that is a fair average—we have 336 pounds of live pork left us as the increase in weight apparently due to the cowpeas alone.

In our experience, this is the usual result of feeding limited amounts of corn to hogs grazing on any nitrogenous forage plant—the acre of cowpeas, peanuts, or alfalfa thus supplemented affords a larger yield of pork, even after deducting the maximum amount of growth the extra grain could produce.

IN AN experiment in Kentucky a comparison was made between the carrying capacity of cowpeas and of soy beans. When both were grown on rich land, the cowpea fell considerable behind the soy bean in amount of pork produced per acre, and in the number of days of grazing afforded.

In an Alabama experiment, when cowpeas were fed alone in a dry lot they showed practically the same feeding value as an equal weight of shelled corn. But a mixture of the two proved decidedly more effective than did a strict diet of either. Moreover, in a ration consisting of half corn, cowpeas proved decidedly more efficient than wheat bran, the cowpeas and corn requiring only 433 pounds of feed per 100 pounds of growth compared to 521 pounds of half wheat bran and corn. The carcasses of the hogs fed on cowpeas alone, and on a mixture of cowpeas and corn, also showed a larger proportion of lean meat than the hogs fed on corn alone.

Cowpeas are adapted to practically all Southern soils, and are in general use as a catch crop between rows or hills of corn where they can be used to advantage in pork production by letting the hogs do the harvesting, the while picking up any waste corn.

Cowpeas mature from the middle of July until frost, while the bulk of the cornfield catch crop is available for hogging off in September and October. The sooner the seed is utilized by hogs after maturing, the less is the chance of waste from weathering and sprouting.

We shouldn't forget that the real point in using special hog crops is to make the hog harvest his own feed. It isn't profitable to pay for the harvesting of cowpeas, peanuts, or sweet potatoes that subsequently are to be fed to hogs. The problem of the Southern hog farmer is to plan and practice such a system of cropping as will furnish his hogs constant employment harvesting their own feed and supply them with enough supplementary feed so as to make this exercise of self-feeding comparatively light and the gains fairly rapid. Moreover, the feed carried to the hog as grain supplements or finishing feeds must be such as can be handled with a minimum expenditure of human labor, such as tankage or corn. One or the other of these two feeds is usually the best possible supplement for hogs at any kind of harvest work, whether it be of special hog crops or ordinary pasture.

Edwin Porch of Bridgeton, New Jersey, is wearing this open-faced grin because he feels that he and his father, Edwin Porch, have tacked the Indian sign on E. W. Plonien of Waukegan, Illinois. The New Jersey faction bragged about their corn in the November issue of Farm and Fireside. Illinois retorted with Golden Hubbard squash in March. The Jersey comeback is pumpkins—four acres of 'em, and 20 tons to the acre. They sold at $14 a ton, and it took only 200 pounds of fertilizer to the acre to grow them. The largest weighed 87 pounds. Mr. Porch brought these pictures to us personally, and he said: "See if Mr. Plonien can find anything in Illinois to beat this record!"

Under pioneer conditions in Southern hog-growing, the velvet bean has been utilized to quite a considerable extent because this crop is conveniently at hand throughout the winter months, when the cowpea, soy bean, and Spanish peanut are no longer available. The custom of wintering shotes on velvet beans, supplemented by any other waste material in the cornfields where they had been grown as a catch crop, came into rather general adoption because of the pioneer tendency to be content with little better than a mere maintenance of weight during the winter. The early farmers relied on peanuts for the bulk of the increase in live weight, for they are ready for use from late summer throughout the fall. Then, too, it was difficult for the farmer to be sure just what results his hogs were getting from the velvet beans consumed in the fields, because in many cornfields the catch crop was a combination of velvet beans and a runner variety of peanuts.

From recent accurate experiments with velvet beans, we make the conclusion that a part of the winter growth of shotes formerly attributed to velvet beans resulted from the peanuts and other waste material and forage found in the old cornfields. An acre of velvet beans, growing as a poor stand where corn had been harvested, was found in one Alabama experiment to effect a saving of only 12 bushels of corn, a very poor showing compared with the corn saved by the use of soy beans, peanuts, or rape.

In one experiment in Alabama, a mixture of half corn and half ground velvet-bean seed (without hulls) in all respects proved inferior to a diet of corn only as a pork maker, the higher protein content of the mixed ration being more than offset by the decreased palatability of the velvet beans.

BECAUSE of its relatively low palatability, also because of sometimes unfavorable effects on pregnant brood sows, the velvet bean must be placed below the peanut and soy bean as a hog crop, which should, however, in nowise prejudice its cultivation as a catch crop with corn, as it has a unique value as winter feed for cattle and for soil improvement.

The sweet potato is especially adapted to sandy land, and with judicious fertilization can be made to produce rather large yields on indifferent corn land. Growing and harvesting this crop requires much greater labor, however, than corn; hence, the sweet potato is only regarded as a practical crop for hog feed when the hog does the harvesting, or when unmarketable potatoes are fed.

Sweet potatoes contain only about 30 per cent of dry matter, about one third as much as corn, and less than one third as much protein. A limited amount of experimental work has seemed to indicate that under some conditions nearly four bushels of sweet potatoes are required to equal the feeding value of one bushel of corn. It is believed, however, that, with a supplement of tankage or peanut meal, it is possible to make three or three and a half bushels of sweet potatoes equal one bushel of corn.

Our experience has been that in hogging off this crop the animals root up and only partially consume a considerable number of sweet potatoes, which sometimes results in those thus exposed being lost by rotting. The earliest patches of sweet potatoes can be utilized by hogs in August, but as they continue to increase in yield nearly or quite up to frost, it is wiser to hog them off in September and October. October is the most convenient month for utilizing this crop, as it then may be used as a finishing feed for hogs fattened on the earliest peanuts.

IT IS a question in farm management whether it pays better to grow a limited acreage of sweet potatoes for hogs or to depend almost entirely on corn for their starchy feed. To reach a conclusion on this point, we must add some figure to the value of the expected corn crop to represent the estimated feeding and fertilizing value of the legume grown as a catch crop with corn. Generally speaking, the chief dependence should be on corn and its catch crop, but it may serve as an insurance against unfavorable corn years for the hog raiser and trucker to substitute sweet potatoes on approximately 10 to 20 per cent of this maximum corn acreage. Then, if market prices are satisfactory, he can sell sweet potatoes for human food at a price several times what they are worth for pork production. Otherwise, they may be consumed by hogs, which leads me to believe the Southern farmer working sandy soil would do well to make an increased use of the sweet potato as a crop for hogging off.

The chufa is of the sedge family, and is probably the only plant of that family with any recognized agricultural value. Its valuable part consists of tiny tubers or "nuts," scarcely more than half an inch long, and of slightly less diameter, which are borne in dense masses on the roots under the surface below the grass-like leaves.

As no implement has been devised for lifting and separating these tiny tubers, harvesting is a slow operation and makes the "seed" a rather expensive item, and here again we have a crop that is profitable only when the hog does the harvesting. Unlike the peanut and soy bean, the chufa lacks the power to get its nitrogen from the air, and whatever special place it has in pork production is because of its ability to remain sound in the soil and be available for hogging off in December, January, or February. It is probably because of its being rooted up during the period of winter rains that the chufa is grown almost entirely on light, sandy soil instead of in stiffer soils, which would be injured by the process.

IN TWO Alabama experiments the average amount of growth of hogs per acre of chufas was found to be 307 pounds *after* deduction was made for growth due to a grain supplement fed as about a half-ration. In another test, the average daily gain from chufas and a half-ration of grain was 1.46 pounds, which shows a rather high feeding value for the crop.

In another year, when conditions were less favorable to chufas, the crop proved somewhat inferior to Spanish peanuts in per-acre pork production, but greatly superior to an equal area of maturing sorghum. The average gain per shote was only .72 pounds daily, and, besides chufas, 307 pounds of corn was consumed per 100 pounds of growth made. The acre of chufas carried 10 shotes, [CONTINUED ON PAGE 26]

Things We Have Learned About Coöperation in Merrie England

By Jack Brooks

Romford, Essex, England

EXPERIENCE—that stern old instructor with the hickory stick having knobs on it—has proved to the British farmer that he can produce more economically on coöperative lines, make better profits, and, incidentally, supply the public at a lower price. And of course, while the British farmer always has an eye to the main chance (he will tell you he's not in the game for charity), he likes to give the consumer something at a fairly reasonable price.

Coöperation among the farmers of Merrie England has reached something of a fine art. In fact, it is pretty safe to say that but for the system of coöperation as practiced during the "shimozzle" in Europe, and throughout the trying times of the last two years, many a carrot connoisseur would have gone to the wall.

Coöperative societies for every mortal thing connected with British farm life have been formed, and most farmers—excepting those caliphs who have achieved a baronetcy and keep a flock of limousines in the offing—belong to these societies. If you want to insure Jane, your coöperative insurance society will do the trick for you. And it's quite on the cards that you will want to insure Jane, because she is a prolific milker, and as such must be safeguarded against those varied evils that seem to be sent especially to try nice, well-bred cows.

Again, you may want to buy some special fertilizer or some rather choice cow cake. But you are only a modest sort of farmer, just starting out in life, as it were, and they haven't had to build special vaults at the bank to accommodate your ducats. Therefore, you put your case before your coöperative purchasing society. By buying in bulk for its many farming members, you get your cake and your fertilizer eventually at a price that doesn't give you spontaneous combustion. For while your society will buy 200 tons of seed or manure or phosphate of lime without batting an eyelid, you couldn't have purchased 20 tons without feeling a draft in the treasury department, besides having to pay 100 per cent more for the stuff.

If you want to insure Jane, your coöperative insurance society will do the trick for you

Then there is the coöperative society that acts as a sort of private inquiry agency for the mutual benefit of those concerned. The British farmer cannot afford to do without this concern, for seldom is he expert enough to be able to differentiate between seeds that have plenty of "pep" in them and those of the frayed-out variety. That is where the coöp society comes in again. Farmer Giles does not feel inclined to pay for an analysis of his seed off his own bat. So the society's expert buyer does it. The farmers' coöperative society scores again.

It doesn't cost a thousand dollars to belong to these societies, either. You pay a small initiation fee and so much a year in dues, in return for which you are entitled to the services and benefits of said societies. Each particular branch of farming of agriculture has its coöperative society, and all are affiliated with the granddad organization known as the A. O. S., or, in other words, the Agricultural Organization Society. For instance, there are about seventy coöperative societies handling nothing but dairy business. They handle something like 60,000,000 gallons of milk in a year. And it must be remembered that England is not such a "tarradiddling" large place. You could set it down comfortably in the State of Indiana and then not have any overlapping at the edges.

There is the coöperative egg society. Its business is to collect the eggs from all farmers' holdfngs where said farmers are members, and test, sort, and pack them at the depots. Egg sales have got to be a big thing over here. An ordinary anemic-looking specimen that Father used to use for ammunition at elections will fetch between 10 and 12 cents to-day. In one year the consumers of this island paid just $50,000,000 for imported eggs, and that at a time when eggs cost only two cents each. One coöperative society sold 8,000,000 eggs for its farmer members the year of its inception. The egg societies collect three times a week. All collected eggs are received, tested, graded, packed, and sold at the depot, which is usually on a railroad. There are four trade requirements insisted on by the society from its members. It stipulates that the egg shall be clean of shell and of good shape, full (viz., have a small air space), bright (perfectly clear without spot or shadow), and weighing from 2 to 2½ ounces.

WHERE the coöperative concern benefits the farmer particularly, is in the purchase of farm machinery. His society purchases direct from the implement manufacturer in large quantities, and it can sell to its members at a trifle above cost price. The coöperative farmer, besides, reaps the advantage of lower freight rates. Altogether, he is in a much safer position than were he to negotiate with the local dealers for the things he needs.

But it would fill a $1.50 size book to tell of all the various coöperative societies there are extant in this right little, tight little isle. There are societies for carrots and mangolds and "turmuts," as well as wheat and oats and barley. There are loan societies worked on the coöperative principle, whereby the farmer may "raise the wind" for four or five hundred if he's on his beam ends temporarily. In fact, there is no end to these mutual help organizations. And while there are a lot of "high-brow" farmers—whose acres are as sleek as a well-groomed horse, and who sport the blue-blood crest of aristocracy on their notepaper—having little use for coöperative concerns, there are thousands of smaller men who have. And it is these smaller farmers who count, for their farms have not reached that pitch of perfection enjoyed by the big landowning farm aristocrat, but must still be worked on unceasingly if a fair profit is to be shown.

Experience—that stern old instructor with the hickory stick—has proved to the British farmer that he can produce more economically on coöperative lines

Here we see Louis Monsees, veteran mule breeder of Pettis County, Missouri, and "Pride of Limestone Valley," one of his champion jacks

"The Farm That Jacks Built"

By John Francis Case of Missouri

LOUIS MONSEES of Pettis County, Missouri, did not inherit his love for the long-eared nightingale. His father was a fruit grower, but the boy "just naturally" took to livestock, and his beginning was a jennet, acquired in a trade. That was forty years ago. Asserting that he had "set his peg" to build the best herd of jacks and jennets in the world, Monsees bought a rough 40-acre farm and started in.

Through constructive breeding he created a strain of jacks far larger than had been bred before, and within a quarter century had won practically all the championships at two world's fairs, and had sold more than a half-million dollars' worth of jacks and jennets. Every year the surplus animals were disposed of at public sale to the highest bidder. In one sale, bidders from all over the world paid $67,000 for jacks and jennets. In every clime where mules are reared, jacks from the Monsees farm can be found.

When he finally decided that his "peg" had been uncovered, his goal reached, Louis Monsees had acquired 1,500 acres of fertile Missouri land, a fine family, and a reputation for honesty and fair dealing that among stockmen was world-wide. Handicapped by the loss of his right arm, Mr. Monsees made his brain do double duty; his success is the result of untiring energy and constructive planning. Deprived of education, he schooled himself through home study. No man in Missouri now is more strongly in favor of education. His sons, who are now carrying on the work, have attended the Missouri College of Agriculture. Louis Monsees was the first president of a county farm bureau in the United States. There are now 50,000 farm bureau members in Mr. Monsees' home State.

Like every other business, the jack business has felt the recent depression. The latest sale at the Limestone Valley Farm totaled but $20,000; a few years ago it would have been twice as much. But Louis Monsees is not discouraged. Without question, the coming years will be a repetition of the success that has attended this veteran stockman in more favored seasons.

He still lives on the old home farm, breeding the animal whose voice to him is more musical than that of any prima donna, fox-hunting, entertaining his friends with true Southern hospitality. And, no matter what he does, Louis Monsees believes in traveling rapidly. On his farm, which borders a state highway, is a sign: "Speed limit 90 miles an hour."

Nothing slow about the farm that jacks built.

WITHOUT hope of posterity or pride of ancestry, the humble mule has had his share of glory. Either in pulling a plow or hauling ammunition up to a belching cannon, Mr. Mule has rendered faithful and unfailing service. But whoever hears of a mule's father? Mr. Jack is the lad behind the mule, and Louis Monsees of Pettis County, Missouri, is foster-father to a few thousand of Mr. Mule's progenitors. Whenever you see a mule it's a safe wager that directly or indirectly he carries the blood of Limestone Valley Farm stock, the farm that jacks built. J. F. C.

Your Last Chance to Get War-Risk Insurance

By Richard T. Bell

IF YOU ever had a government insurance policy and let it lapse, you had better reinstate it before December 31, 1921. This probably will be your last opportunity to share the benefits of this cheap form of insurance. Ex-service men can get $10,000 worth of protection for $7 or $8 a month, with the privilege of converting the term policy into a permanent one any time before March 4, 1926. If you are behind in your payments, or if your husband, son, or brother is, better attend to this at once. Write direct to Mr. C. A. Pennington, Assistant Director, Veterans' Bureau, Washington, D. C.

In response to the many inquiries received from FARM AND FIRESIDE readers about homestead lands available to ex-service men, I have gone into this matter rather carefully. There seems to be considerable land open to settlement by veterans. The amount of desirable land, however, seems to be rather limited. If you want to know more about this, write to General Land Office, Department of the Interior, Washington, D. C., giving the name of the State in which you would like to settle.

I AM still answering many questions by letter every month about matters of interest to ex-service men and their families. I am glad to say that I have been able to help many. If you have a question, send it in with full details of the case. Enclose a stamped self-addressed envelope for reply, and address Richard T. Bell, American Legion Representative, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

Long-Staple Cotton Farmers Find the One-Crop System Does Not Pay

By H. E. O. Whitman

THIS is the story of the Salt River Valley of Arizona, the desert which President Roosevelt did so much to turn into one of the garden spots of American agriculture by pushing through the titanic Roosevelt Dam irrigation project, reclaiming hundreds of thousands of acres of wonderfully fertile land in the valley, and inspiring other irrigation projects in the State.

My excuse for telling this interesting story just now is that it will show how the tillers of this fertile reclaimed soil made the big mistake of going crazy over a one-crop system of long-staple cotton. It is a great brief against a one-crop system of any kind, anywhere, at any time. The crash of their market has awakened the Arizona farmers to their mistake, and they are now developing a diversified cropping system which will in time make this Roosevelt project an increasingly munificent contribution to American agriculture, and a magnificent monument to Roosevelt, the man.

Say Iowa, and nine out of ten people will instantly think of farms, crops, agriculture. Say Arizona, and nine out of ten vaguely think of a country made up of a combination of desert, mines, cattle ranches, and bad, bold gunmen who spend their time posing for the movies now that prohibition is upon us.

The tenth person will either have been in Arizona or will know someone who has, so he will know otherwise. In time, this one person will be joined by others, until six or seven of the ten will know Arizona as it really is.

Desert, mines, cattle, and sheep, all these have their part in Arizona. But now agriculture is coming into its own. At present it centers in the Salt River Valley, immediately surrounding Phoenix, the capital, but it is making great strides in other sections. And in the heart of the state, agriculture is the all-absorbing topic. One rarely hears of anything else

WHEN you visit Arizona, as you will probably do some time or other if you are in the traveling habit, you emerge from a huge expanse of mountain-bordered, cactus-studded desert, into the green valley. No matter how you come, over the marvelously scenic Apache Trail from the Roosevelt Dam, over 80 miles of beautiful mountain and desert highway; over the Arizona Eastern, up from Maricopa 30 miles south, where the main line Southern Pacific passes; or over the Sante Fé, down from the north, the effect is all the same. You pass from a desert into a land of green trees and fields and grass, and you are in the Salt River Valley. Agriculture has made it.

The valley must be seen to be appreciated; type is but a poor thing with which to describe it. Set in a waste of mountains and deserts, crisscrossed with canals, a beautiful green garden in the midst of barrenness, the big agricultural region of Arizona in the heart of the State, tourists appreciate it all the more after crossing the desert in their trains or motor cars.

It is refreshing. For the first glimpse I can recommend an airplane trip over the entire valley; I first saw it that way, though I had been in Phoenix several months, and the contrast of the green and brown, the desert and the garden, is striking.

The only way to understand the importance of the oldest industry on earth in a country where you last expect to find it is to ramble about the valley in a motor car. You see cotton fields and orange groves, alfalfa fields and dairy herds, cantaloupes and melons, wheat and barley and oats, all deriving life from water that flows smoothly in innumerable ditches. Good houses are not many outside the cities; in many cases ranchers have not taken time to build them. I have seen expensive motor cars stand in front of shacks that an Eastern working man would scorn to live in. Your car crosses tree-lined canals every mile or two. And if you like, you can take beautiful moonlight trips at night.

Tractors are plowing the fields during the day, in season; Mexicans are picking cotton, in season; loads of cotton and oranges and grapefruit and melons and grain pass you on the road—in season. Scattered about the valley towns you may see 19 cotton gins; in Phoenix the citrus growers' association has its warehouse and plant. Creameries there are too, and packing houses.

Such is the Salt River Valley, telling the world of a new agricultural Arizona.

The rise of agriculture in the Salt River Valley may be traced to one thing, for the most part—cotton. Not the common variety of cotton that has made the South famous, but long-staple cotton, the kind that grows in Egypt and on the sea islands of our own southern-eastern seaboard. Long-staple cotton is a very important factor in the manufacture of automobile tires, and in the future probably will be used in making cloth of very fine quality as well. Though land in the Salt River Valley has been in cultivation—small but steadily increasing tracts of it—for half a century, it was not until recent years, and the advent of cotton, that the region entered on its big agricultural boom.

The cotton fever in the valley surrounding Phoenix reached its height in the 1920 season. In the season just before, the product eventually reached a price of more than a dollar a pound, and naturally everyone went crazy about it. The period of depression, attending readjustment, which struck the country last summer (1920) found cotton entirely dominating the valley, and for that matter Arizona agriculture in general. The Salt River Valley was practically a one-crop region, and when the fall came there was no market.

At the time this is written, in 1921, there is still no cotton market, and many farmers face big losses. The tightness of money during the picking season caused them much trouble, for many were unable to borrow money for their picking and ginning. As a result, the valley is in a slump though the slump is only temporary.

Land prices reached their peak in the valley in the early part of 1920, a height that wholly agricultural States in the Middle West and South could not surpass. Prices averaged around $400 an acre for improved land, and I know of bona fide sales of good land ready for cotton at $700. Six hundred dollars an acre was not uncommon, and large tracts, from 180 to 400 acres, sold as high as $250 an acre.

Even higher were the prices for citrus land, for Arizona oranges and grapefruit command top prices in competition with the California and Florida product. Citrus land in the valley sold as high as $1,000 an acre. Incidentally, while cotton farmers temporarily are in a bad way, citrus growers had a good season; so did alfalfa growers.

The Salt River Valley surrounding Phoenix, in the south central part of the State, is the largest agricultural area in Arizona. In it 295,000 acres are under cultivation. I have heard that 400,000 acres will be under irrigation, which means cultivation in Maricopa County, in which the valley lies, by 1922.

Outside the Salt River Valley, agriculture is making vast strides in other parts of Arizona. In Gila Valley, around Florence and Casa Grande—Florence is some 65 miles southeast of Phoenix—a movement is under way for the construction of the San Carlos Dam on the Gila River which will bring 150,000 acres of land under irrigation. Last fall 10,000 acres were planted in that district. Around Yuma, in the southwest corner of the State, on the Arizona-California-Mexico border, 10,000 acres were planted, and in the Parker district, on the Colorado River to the west, 10,000 acres were in prospect. Tucson, in the south, also has an agricultural region, in which nearly 5,000 acres were put in. Graham County has an agricultural area of more than 10,000 acres. The total area under cultivation in the State outside Maricopa County, however, is no more than half as large as the agricultural district of the Salt River Valley.

Not very big, as agricultural districts go, you will say. Quite right. Put all the cultivated lands of Arizona down together in the Middle West, and they would be lost. But see them in Arizona, and they seem very great. And remember that nearly every acre of land in Arizona depends on irrigation for its life. With a very few, small exceptions, Arizona agricultural lands are former desert wastes, reclaimed by water given by artificial means.

Irrigation has made agriculture in Arizona, and that is the wonderful part of the new industry in the young State. Nature has had nothing to do with it.

The Salt River reclamation project is responsible for the Salt River Valley. And in the baby State you hear of reclamation projects on every hand. Perhaps the most important of the many now agitated is the Colorado project, proposing the building of a dam on the Colorado River to irrigate millions of acres in the Southwest, and furnish electricity to the extent of some 1,300,000 horsepower. This huge supply of power is the greatest part of the project, for that tremendous amount of electric energy, applied to pumps, would irrigate huge areas of land at any distance from the project itself. Pumps operated by power are used considerably in Arizona as a means to irrigation, though the cost of installation prevents their application in many cases.

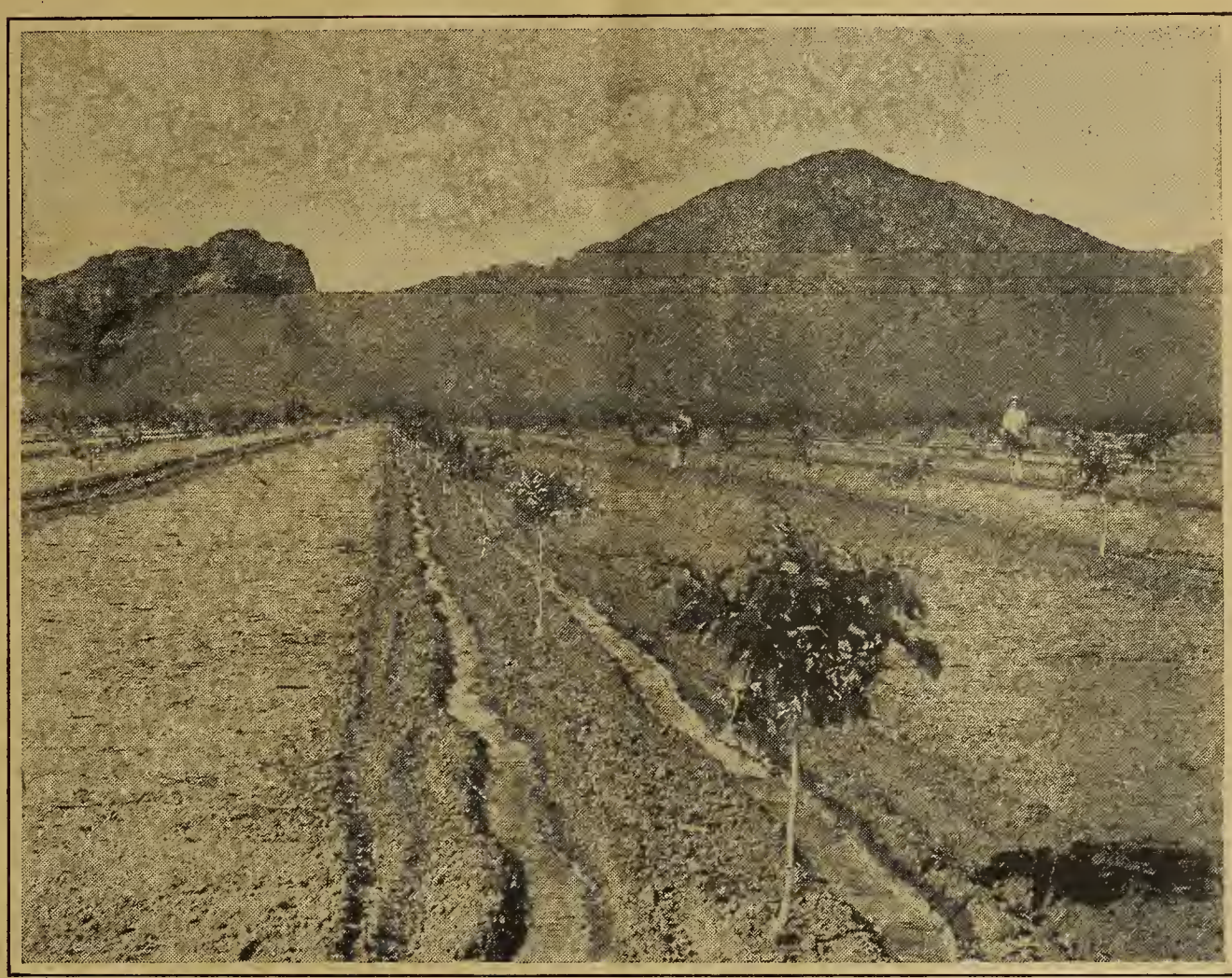
THE movement for this Colorado reclamation project was started early in April, 1920, at the annual convention of the League of the Southwest in Los Angeles. If it becomes a reality, it will rank as the greatest in the world.

But leaving the future aside, the Salt River Valley project, a reality, is among the world's greatest feats of irrigation and reclamation. For its backbone it has the Roosevelt Dam, dedicated by the former President, who had a great deal to do with making it possible, and now standing as a monument to his name.

This great dam, started in 1906, has gained world-wide fame because of its success. The dam is built in a narrow canyon 80 miles from Phoenix. This giant Atlas of stone holds back in a great natural basin, a world of water wealth on which depends the agricultural prosperity of the valley. The lake, filling a beautiful valley for a length of 28 miles, is surrounded by hills and mountains where are to be found the remains of cliff and cave dwellings.

The mighty masonry dam rises to a height of 284 feet from the bed of the river, where it is built into the bed rock for a depth of 30 feet. It is also locked into the canyon walls on each side for 30 feet. It is 168 feet thick at the base, and reduces, step by step, until at the top, where it is crowned by a roadway, it is 20 feet wide.

Along the top, including two fine bridges which span the [CONTINUED ON PAGE 27]



This is a picture of a young citrus orchard, offering a vivid illustration of the inroads agriculture, with the help of irrigation, is making into the Arizona deserts. Much of Arizona's farm land has had just such humble beginning—a fulfillment of the prophecy of Isaiah: "And the desert shall rejoice, and blossom as the rose"

"Up Salt River"

THE old political reference to a defeated candidate going up "Salt River" finds a striking parallel that is literally true in the Salt River Valley of Arizona. The farmers of that valley who stuck to the one-crop system hit the bumps when the cotton prices dropped. The break, however, was fortunate, for in future the valley will be an agricultural rather than a cotton region. THE EDITOR.

When I Picked Up a Polecat by the Tail

It's perfectly safe, sometimes, to handle the woods pussy

By F. E. Brimmer of New York

This is a skunk of the full-stripe variety; below are his tracks in snow. Mr. Brimmer says it's safe to handle skunks. It may be: we won't deny it; nor will we pick one up by the tail to find out

LIKELY the fur bearer most trapped in every section of the country is the skunk (*Mephitis mephitica*); and yet, milady seldom thinks of buying a set of skunk furs. The odium attached to the name causes the fur dresser to shun the term skunk. And so that glossy, coal-black muff and neckpiece you buy for "sable," or under some other name, is usually just plain skunk.

The range of the common skunk covers nearly the entire United States, and it is likewise found in Mexico. It is most abundant and valuable in the North.

By nature the skunk is pig-headed and stupid; perhaps his natural protection has dulled his wits. He is irritable, and must be handled carefully. Not many of us have the desire or the courage to handle this fur bearer, but he is perfectly harmless if his feet are off the ground.

I remember how our hired man was sent to the barn early one morning for eggs, and returned hastily with the information that a skunk was in a hen's nest. This nest was in some straw at the bottom of a sugar barrel. Over the top were two boards, pretty well covering the opening. The hired man had thrust his hand down into the barrel and felt all around under what he took to be a hen on the nest, the skunk offering no offense. I went out and picked up his skunkship by the tail, carrying him into the pasture with no display of fireworks whatsoever.

THE animal in the drawing will be recognized as a skunk of the "full stripe" variety. If the stripes of white had been a little wider, he would have been a "white" specimen. The best grade of fur is the "star" or "black" pelt, where the white is all centered upon the head, usually covering the top of the head entirely. I have seen possibly half a dozen skunks that were practically all black. I have never seen one that was entirely white. The amount of white on the body determines the relative amount of white hairs in the tail. Naturally, the greater the amount of black, the more valuable the pelt, for there is just that much less to dye and dress for the fur market.

The skunk's young are born in April or May, often in a woodchuck hole, and may be six to nine in number. They follow the mother in single file until almost full-grown, and when in a hurry each grasps the tip of the tail of the one in front. It is an interesting sight to see a string of skunks hustling awkwardly behind the parent. They feed on grubs, insects, birds, eggs, carrion, and once the writer caught a skunk on a sweet apple bait intended for muskrats and rabbits.

In the Southern States is found the little spotted skunk (*Spilogale*), readily recognized by the alternating bands that extend about the body like dirty white streamers. The little spotted skunk must not be confused with the civet cat, which is really a member of the raccoon family.

Skunk tracks, also illustrated, are easily recognized in the snow, being something like a cat's track, but always slovenly and showing a dirty spoor. The best place to trap skunks is at the entrances to their burrows. No baits are necessary. They are not a very difficult animal to take. The most important thing is to find their whereabouts.

EDITOR'S NOTE: If you have any questions about furs, hides, tanning, trapping, or hunting we will try to answer them. There are a number of useful bulletins which can be secured by sending 5 cents each to Superintendent of Documents, Government Printing Office, Washington, D. C. These are: *Economic Value of North American Skunks, Farmers' Bulletin 587, The Domesticated Silver Fox, Farmers' Bulletin 795. The Muskrat as a Fur Bearer, Farmers' Bulletin 869. The Common Mole of Eastern United States, Farmers' Bulletin 583. Trapping Moles and Utilizing Their Skins, Farmers' Bulletin 832. The Muskrat, Farmers' Bulletin 396. Fur Farming as a Side Line, Reprint from Yearbook separate 693.*

How Uncle Frank Beat Us Growing Grapes

UNCLE FRANK SIMISON, as he is known to all of his neighbors, has a reputation for raising fine grapes. Every year he has a crop, even if his neighbors have none at all. I met him the other day as he came around the corner of the courthouse. After the usual greetings I said:

"Uncle Frank, how does it happen that you always have such good grapes when your neighbors don't have any. I've got some old vines that only have a few little scrawny grapes on them every year. I've a good notion to cut them out and use the ground for something else."

"Don't you do it!" he exclaimed. "Come on out Monday and I'll show you how to make them bear good grapes every year."

The following Monday Uncle Frank took me out to his grapevines. There were some old Concord vines, but they looked like young ones, being filled with long, healthy young canes, instead of the matted mass of stubby, lifeless canes on my vines.

"Now," said Uncle Frank, "it is all in the way you prune your grapes. Most of you fellows let your vines choke themselves to death; and if they are fighting for breath all summer, of course they can't produce big, juicy grapes at the same time."

"SEE here," he continued, "here's a vine that I planted when I was first married. It's a few years older than you, and it'll out-live you yet, with proper care. If you look close you'll see that the main canes on the vine are a year older than the canes that bore fruit this year. Grapes, if you ever noticed, are borne on the canes that start the same spring. The cane grows 12 or 18 inches, and there two or three flower clusters form. So you see it is only necessary to start 15 or 20 canes every year, depending on the strength and vigor of the vine, to make the vine produce a capacity crop of, say, fifty bunches every year.

"Watch now while I prune this vine. See, I've cut off all the old wood except the two opposite canes next to the vine. Now I'll cut these two back to ten strong buds each, and this vine is pruned except for stripping and burning the old canes.

"Now, then, you trim the next one. That's right. No! No! Don't cut off those small canes on the old vine. Now I'll tell you about them. You see, if you cut off the opposite canes every year, you keep working away from the main stalk. This stub, as it grows longer, gets hard and dry, like your vines, until the sap doesn't flow through it freely any more. That's why I'm starting those little new spurs. Next year I'll cut away the old spurs, and then I'll have a new vine."

W. E. WIECKING, Indiana.

Are You Getting Yours?

EVERY month I get from the state agricultural departments, and from the U. S. Department of Agriculture, many interesting bulletins. A few are technical, and intended only for the scientist. Others are more or less duplications of what has already been published. But the majority are prepared for *your* use on the farm. I would like to review more of these than I do, but cannot, as space does not permit, and because most state bulletins are available only to residents. All those listed below are available to anyone in the United States, and their application is general.

These can be obtained free of charge, excepting those marked otherwise, so long as the supply lasts, by marking the ones you want and mailing this list to your congressman or to the Division of Publications, U. S. Department of Agriculture, Washington, D. C. It is better to send your request for farmers' bulletins to your congressman, because congressmen receive a larger supply for distribution than do the other offices. Other Department bulletins, circulars, etc., can more easily be obtained from the Division of Publications.

YOU will find the bulletins issued by your own state especially useful, as they deal with conditions in your territory. These are free also. If you don't know where to write for them, ask me and I will send you the proper address. You are missing a real opportunity to collect a valuable reference library if you aren't getting both the state and the national publications. Remember, these departments are *yours*. You pay taxes to support them, and are entitled not only to receive their literature, but also to ask any questions that you like.

Monthly List of Publications. This circular describes all the new publications of the Department of Agriculture. It is free, and a postcard will put your name on the list to receive it.

Motor Trucks on Eastern Farms. Farmers' Bulletin 1201. This gives the facts about the practicality of the farm motor truck, based on the experience of 753 farmers in the Eastern States. If you are thinking of buying a truck, it will pay you to read this.

Swarm Control. Farmers' Bulletin 1198. A 47-page treatise of interest to all beekeepers. Swarming can be regulated by using methods described in this bulletin.

Take-All of Wheat. Farmers' Bulletin 1226. How to recognize and how to regulate this serious wheat disease.

Use of Explosives in Blasting Stumps. Department Circular 191. Blasting stumps is a safe and efficient practice, provided it is done properly. It might save you serious trouble and extra work to read this before you try. Price, 5 cents, from Government Printing Office.

Manufacture of Cows'-Milk Roquefort Cheese. Bulletin 970. French Roquefort, one of the most expensive cheeses, is made of sheep's milk. A similar cheese of good quality can be made of cows' milk, and this bulletin gives the right method. Price, 5 cents.

Unit Requirements for Producing Market Milk in Eastern Nebraska. Bulletin 972. An addition to the series dealing with milk costs in different sections of the country that will interest dairymen of the Middle West. Price, 5 cents.

Pop Corn for the Home. Farmers' Bulletin 553. Tells how to grow, cure, and prepare pop corn. Also methods for making candy pop corn and pop-corn balls.

Development of Tubers in the Potato. Bulletin 958. Do you know what makes some potatoes small, others large? This and other valuable information about the "spud's" habits is given.

ANDREW S. WING.

No, it isn't a toothache. This farm girl is having a free examination by a National Tuberculosis Association doctor

A Chance for You to Help Save Human Lives

OUT of 50,848 farmers who died in 1909, 8.7 per cent died of tuberculosis of the lungs. Although this is a better showing than that made by indoor workers, it is startlingly high. The disheartening thing, too, is that it is *so* unnecessary. It is not always easy to cure tuberculosis, but it *is* entirely possible and practical to *prevent* most cases.

Plenty of fresh, outdoor air, sunlight, wholesome food, and sufficient rest will keep away the White Plague.

Many farm people have contracted tuberculosis by weakening their resistance through overwork, and by sleeping in close, stuffy rooms. They didn't *know* how to conserve their own health.

You can do your share to help fight this dread disease by buying Christmas seals from the National Tuberculosis Association.

Starting sixteen years ago, this association has grown to be a powerful influence in preventing tuberculosis. In this time, due largely to its efforts, the yearly death rate in the registered area has decreased from 200 in each 100,000 population to 125.

Part of the money you give will be used in your district. You will be helping your own community. Traveling clinics, such as shown above, work right out in the country, making free examinations, and giving helpful advice.

Someone in your community will ask you to buy Christmas seals. When they do, think of what the money goes for, and I'm sure you will want to help too.

THE EDITOR.

Marketing Our Own Ducks

[CONTINUED FROM PAGE 7]

the shell to its appearance in the New York butcher shops or restaurants. I keep 2,800 breeder ducks, all purebred Pekins, selected each year especially for their size and quality. The eggs these breeders lay are placed in a huge incubator holding 45,000 eggs. Of course, all do not hatch, but a fair percentage does—not, however, so large as when ducks do the incubating. When the young ducklings can leave the warm brooder houses, they are put into large, open pens bordering our two rivers.

I employ seventeen men to care for these ducks, and it keeps them all busy in the rush season. Two of my sons, Robert and Louis (when he is not in college), and my son-in-law live at home, and help me take care of the business. In addition, it takes about twenty-five Italian and Polish women to do the picking, which is paid for on the piece-work plan. Feed is ground and mixed by motor-driven machinery, and is distributed to the pens three times a day by means of a miniature railroad. Various feeds are used, including ground corn, meat scrap, and plenty of green stuff. We grow only the green stuff—mostly corn, oats, and rye. Practically all the feed I buy, as well as general supplies, is bought through a coöperative company, the Suffolk Feed and Supply Company of Eastport, Long Island, an organization composed mostly of duck growers.

When the ducks are about eleven weeks old they are ready to go to market. The first lot is shipped about the last of April, and new hatches are kept coming on all the time until late summer. Some growers get their ducks on the market as early as February, but I have found that, in the long run, the later ducks pay best. Ducks are dressed like chickens and other poultry—the feathers are taken off, but heads, feet, and entrails are not removed. After cooling in ice, the dressed ducks are marked with a water-proof, trade-marked tag, placed around the neck, graded carefully, and packed in iced barrels. This grading is very important, because we are handling a quality product and every barrel marked "Firsts" *must* be composed of absolutely first-quality ducks. About 30 ducks weighing 5½ pounds each fill a barrel nicely.

DUCKS that are ready are killed regardless of market conditions. They are shipped mostly to the Farmers' Commission House, although I sell quite a few direct to local roadhouses and retail butchers.

Business starts early in the wholesale produce market of New York. Selling begins shortly after 6 A. M., and by noon the bulk of the day's business is finished. The Farmers' Commission House acts merely as a clearing house between grower and wholesaler. It sells to jobbers, hotel supply houses, and, to a certain extent, direct to retail butchers. Buyers come to the warehouse, inspect the ducks, and do their own delivering. Some orders come by telephone and telegraph from other cities.

The ideal way, of course, would be for us to sell direct to the ultimate consumer, but that is not practical. It would require a very great deal more capital, the overhead and operating expense would be greater, and the business would become much more complex.

Advertising has played a very important part in the success of the Farmers' Commission House. In addition to the growers' tags, which go to the butcher, and oftentimes to the consumer, along with the duck, we distribute attractive posters and window cards to all dealers who handle ducks. These posters bear our trade mark, and constantly remind the retailer and his customers that Long Island ducks are standard.

Understand, we not only compete with Western ducks and ducks from Massachusetts and other Eastern States, but also with all other kinds of poultry. The aim of our advertising is to convince the housewife and restaurant patron that Long Island duck is the very finest eating, and, furthermore, that, compared with other poultry of similar quality, it is the cheapest. Which is true. If you have never tried roast young duckling, served with appropriate garnishings, do so, and I am sure you will agree it is a most toothsome dish.

In June we started a newspaper advertising campaign to tell New Yorkers about Long Island ducks. This campaign is supported by every duck grower on Long Island, each man paying according to the number of breeder ducks he keeps. My own contribution this year was $850. Has it paid? It is too soon to tell, really; but we believe it has. My eldest son, Russell, who is learning the commission business as Mr. Mayer's assistant, says that he can notice an increased demand for ducks since this advertising started. I have great faith in the idea, and hope that we can use larger advertisements next year. There are several vital reasons why advertising is essential in our business:

FCH LONG ISLAND DUCKS

This is the official trade mark of the Farmers' Commission House

Organize and Advertise!

THAT'S what put the Long Island duck growers on the map. And if they can do it, you can too.

FIRST, the number of ducks produced has increased faster than the consumptive demand. Just as the California fruit growers have advertised to keep consumption apace with the increasing volume of fruit raised, so we must keep widening our market so as to absorb the normal increase in the number of ducks raised.

Second, we know that ducks would be more widely used if people could be got into the habit of using them. Too many city housewives think of duck as a dish to be used only on rare festive occasions, such as Christmas. We want people to understand that duck should be as much a part of the family diet as is chicken or beefsteak. It is not difficult to cook, and normally sells at a lower price than chicken or turkey. A typical day's wholesale quotations per pound for fowls on the New York market are as follows:

Fresh milk-fed chickens	41c to 46c
Fresh old roosters	23c to 27c
Frozen (1920) capons	48c to 53c
Frozen (1920) turkeys	40c to 55c
Long Island Ducks, spring	28c

If a corresponding price ratio is not found at the butcher shops, it means that someone is getting an unfair profit—and it isn't the Long Island grower or the Farmers' Commission House.

Another notion we want the public to forget is that ordering Long Island duckling at a restaurant always necessitates separation from a roll of bills which ordinarily would buy a dinner for three or four people. However, a few restaurants have capitalized the fame of Long Island duckling, and get from $2.50 to $6 a portion, when a more modest figure would be more consistent with the actual cost.

In short, we are telling the people of New York City and vicinity how good duckling is, why Long Island ducks are best, and why ducks are cheaper than other fowls of similar quality. We can grow ducks economically, we have the machinery for

[CONTINUED ON PAGE 17]

A few of Mr. Hallock's 130,000 ducks. The picture shows a part of his farm, and a stretch of Great South Bay in the background

Actual photograph of Goodyear-Cord-equipped truck in winter hauling for Frank P. Andringa, Marne, Mich.

Copyright 1921, by The Goodyear Tire & Rubber Co.

Safe, Swift Hauling on Winter Roads

"Much of the winter hauling I do on Goodyear Cord Tires is done at night, over hilly country roads, usually with a good deal of snow in the winter months. Yet the Goodyear Cords always carry the load swiftly and safely. They have extended my range of operation, moving grain, live stock and farm supplies, from 100 miles to 700 miles—distances impossible to solid-tired trucks. One of their distinct advantages is their activity on the streets of the cities I haul to or pass through en route. I have got as high as 33,000 miles on Goodyear Cord Tires."—Frank P. Andringa, Marne, Mich.

THE way they climb the hills and hold the roads is the best evidence of the tractive power of Goodyear Cord Truck Tires in winter farm hauling.

Their All-Weather Tread takes a firm, sure grip on the slippery surfaces of paved roads and maintains powerful traction in muddy, slushy going.

The result of their positive road ability is punctual deliveries and more trips with profitable loads.

Their resilient action cushions the truck and its cargo, prolonging the life of the carrier, keeping down repair costs, and protecting the freight they carry.

Their durability, mounting up to thousands of miles of trouble-free running, is a definite product of Goodyear design and Goodyear construction. The full strength of the wide, strong, active tire is always under the load.

Actual experiences of farmers with motorized hauling on Goodyear Cord Truck Tires are reported to those interested by The Goodyear Tire & Rubber Company, Akron, Ohio, and Los Angeles, California.

GOODYEAR

Shall I Farm With Power or Horses?

Answered by Farm and Fireside Readers in These Prize Contest Letters

This is A. H. de Graff at the wheel of the tractor on his 260-acre farm near Adams Center, New York. Mr. de Graff's letter won first prize

It Pays Me to Use Both

First Prize: Won by A. H. de Graff. Adams Center, New York

I MADE more money farming with horses alone, up to 1920, than I could have with a tractor. On my 260 acres, of which about 50 were in woods, I was raising 24 acres of corn, 14 of potatoes, mostly early ones, 1 of mangels, 5 or more of wheat, and about 30 of oats and barley, as well as 65 of hay.

I did all the work on this acreage with four horses, all together weighing about 6,400 pounds. I also had a team on the road most every summer, for about six weeks or so, and took jobs of hauling milk in winter when available. It was possible to do all this, as the horses were good ones and the work came scattered through the year instead of piling up at one period. Because of this, the teams worked on the average 240 days a year, instead of the average 100.

Under these circumstances I couldn't afford a tractor. I had to have all four horses to do my cultivating and haying, hence the tractor would only have been an extra expense. Aside from that, I could work cheaper with horses. Figuring the costs at present prices for horses and tractor, I have attempted to show why in the following graph. On my farm, there weren't over 50 work days for a tractor then, and the horses worked 240.

Costs	4 Horses	Tractor
Interest 6%	$60.00	$42.00
Depreciation and repairs	100.00	100.00
450 bu. oats @ 40c	180.00	.....
12 tons hay @ $16	192.00	.....
Shoeing	60.00	.....
800 gallons of kerosene @ 14c	.....	112.00
35 gallons oil @ 80c	.....	28.00
Sundry expenses	50.00	50.00
Total for year	$642.00	$332.00
Credit horse manure	120.00	.....
Net cost for year	$522.00	$332.00
Cost per day worked	$2.17½	$6.64
Acres plowed per day	4	6
Cost per acre plowed	$.54¼	$1.10⅔

The slight saving in labor effected by the tractor over the four-horse team is offset by the fact that you must use a higher priced man to drive it. (I use a gang plow and four-horse harrows.)

In the fall of 1919 I bought an additional 100 acres. This altered conditions. I either had to get a tractor or another team, which I couldn't use in a four-horse team, as I then would have only six horses, and the extra pair would be required only to help plow and fit, as the other four would do the rest of the work. At that rate I would then have to keep two horses a whole year for approximately 50 days' work.

I bought the tractor.

The comparative costs between the tractor and what this extra team would have cost is shown by taking the old figures for the tractor and giving those for the one team. Upkeep for the team would be the same as half the costs of the four-horse team, except that less feed would be required, about $170 for the year at present feed prices, so at 50 days work per year the cost per work day would be $3.40. If we add the cost of the driver in each case, we have:

	Horses	Tractor
Driver	$2.50	$3.50
Cost per day	3.40	6.64
Total	$5.90	$10.14
Cost per acre	2.95	1.69

I now also have the added advantage of belt power, and of being able to rush work in hot weather without killing the horses. Though I never have, I could work two shifts if necessary.

By means of the tractor I am able to farm 100 acres more land without having any more than a little day help. This ability to run a larger farm, hence a more profitable one, is the chief advantage of the tractor, as it appears to me. You may not be able to work cheaper with it, but you can do a bigger business.

My Tractor Paid for Itself

Second Prize: Won by J. B. Stevenson Lockney, Texas

MY TRACTOR and plows, complete, cost me $1,950, and with them and eight good horses I can do more work than I formerly did with twenty-eight good horses, and in half the time with the help of but one hired man, where before I often needed six.

Last year I broke 700 acres for wheat. I had never before been able to prepare more than 400. My engine repairs cost me $35; my oil and help brought my breaking costs to $1.25 an acre. Hired breaking would have cost me $3 an acre, and, counting in my wages, I saved the price of my tractor in two months' time; had the work done just when it suited me best, and did a much better job than I had ever had done before.

I never owned or ran a tractor until last year, but three days with an expert and close attention to my instruction book was all the help I ever needed. I haven't yet hired any repair work done.

This year a part of my wheat crop was destroyed by hail. I had some extra time, so I pulled my combine with the tractor, and made clear money to pay for my combine and for overhauling my tractor before beginning my fall plowing. Of course, I carried one man with me in running the combine. We took turns in running the engine and the separator. Last fall when I threshed my maize, I pulled another man's separator and threshed his crop, and made $200 clear money, besides doing my own threshing and expenses, in two weeks' time.

In the last thirty days I have prepared 300 acres for wheat, and at the same time taught an orphan [CONTINUED ON PAGE 21]

Cut in One Piece

Grace Margaret Gould suggests copying the French models for gifts

HOW about underwear for Christmas gifts? The new underwear I mean, that's cut in one piece and has so much to do with giving the right look to your gown. Wouldn't you like to make some of these simple, yet dainty underthings for your best girl friend or your sister this Christmas? The French models that the shops are showing are so new and novel that I've picked out two of the daintiest to tell you about. You'll see their pictures on this page. They are cut in one piece, and are so simple to make, and so quick and easy to launder, that they just can't help but appeal to any woman on the lookout for a last-minute Christmas gift.

Both garments introduce new ideas in trimming, and the step-in chemise is an illustration of the new type underwear which helps to give the slender fashionable silhouette. It does away with all extra fullness, ruffles, thick waist bands, and buttons. Instead of lace insertion or embroidery frills, binding in a contrasting color is now the trimming fad.

For instance, on the one-piece nightgown the binding is merely a bias of old-rose batiste. To make it, you cut the batiste one and one-quarter inches wide and then lay the bias along the edge, stitching one quarter of an inch in from the edge. Turn the binding over this edge onto the wrong side, and fold under the raw edge, and fell by hand. There is a dainty little flower trimming, too, made of rose batiste. Each flower is cut out, and laid on the top of the material. The outer edges are embroidered closely with an over-and-over stitch in white, which fastens them to the nightgown. Then the material is cut away underneath.

The touch of color which the new underwear shows makes it very attractive. The [CONTINUED ON PAGE 17]

CUT in one piece!—that's what the woman who does her own sewing likes to hear. These undergarments, copies of the most expensive French models, are extremely simple to make. Both are cut in one piece, which means they can be laundered in a jiffy, and ironed in a jiffy too. The trimming is the very latest French idea, and is also extremely simple. Each garment has so much charm and originality that it is sure to make the Christmas gift acceptable.

No. FF-4117—One-Piece Nightgown, including Transfer Pattern for Appliqués. Sizes, 36 to 42 bust. Price of pattern, twenty-five cents.

No. FF-4118—One-Piece Step-in Chemise, including Transfer Pattern for Appliqué. Sizes, 36 to 42 bust. Price of pattern, twenty-five cents. Send orders to Pattern Department, Farm and Fireside, 381 Fourth Avenue, New York City.

Outwitting Jack Frost

DID you ever think that the hands speak after the tongue and eyes? They really do. Perhaps you have capable hands that tell their own story of usefulness, but perhaps there's a postscript in the second glance that reads—neglect. At this season of the year, when Jack Frost is about making all the trouble he can, why not determine to outwit him? There are those capable hands of yours that I know have little time to rest. Do be careful how you treat them. There are protective creams that are just made to keep the hands from chapping. You put the cream on the hands before going out.

If Jack Frost has got ahead of you, and your hands are already chapped, there is a hand lotion worth hearing about that will make them good-looking again. It is made of herbs, and will not only whiten and soften but also nourish and heal the skin. If you use this lotion, you want to be sure to keep the hands away from any heat, at least for a time. I guess you all know the importance of thoroughly drying the hands, especially in cold weather. You can't dry them enough. The drier you keep them, the softer they will be.

And I'm wondering if you know all the comfort almond meal can give you when washing your hands. Dip the hands in slightly warm water, and then sprinkle with the meal, using it as you would soap. There is a specially prepared almond meal, delightful to use, which is fragrant with the odor of violets.

If you can spare the time, an oil bath once a week will soften and take away all the redness and roughness. In the beauty shops, which are Society's fad to-day, hand culture is especially emphasized, and the perfumed oil bath is one of the features of the treatment.

Miss Gould will send her leaflet on the care of the hands in cold weather. Enclose a self-addressed stamped envelope, and send your letter to Grace Margaret Gould, Farm and Fireside, 381 Fourth Avenue, New York City.

Marketing Our Own Ducks

[CONTINUED FROM PAGE 15]

marketing them, and now we are going to make New Yorkers like them so well that they will consume all that we can supply. And if anyone likes good food and demands it more insistently than the average New Yorker, I have yet to meet him.

Without the aid of the Farmers' Commission House I hesitate to think what would have happened to us during the last six years. In 1915, ducks were selling for about 15 cents a pound (wholesale); last year they averaged about 35 cents; now they are 28 cents. I won't say that the bottom has been reached—duck prices usually follow a year behind the change in grain prices—but it is safe to assume that, were we dependent on the regular trade channels for our market, we would not be getting the prices that prevail to-day.

You can do the same thing with your products, to a greater or less degree, in your own part of the country, by organizing and advertising.

Cut in One Piece

[CONTINUED FROM PAGE 16]

French models are also seen in colored sets in such shades as turquoise, canary-yellow, and apple-blossom pink. These exquisite little under-things are made of batiste and handkerchief linen, but for day-in-and-day-out wear fine muslin, cambric, and dimity are still used. A fine cambric nightgown could have a new touch given it by introducing a colored binding of handkerchief linen instead of the usual lace insertion.

And here's an idea worth copying: On many imported chemises the ribbon shoulder straps are detachable. They are finished at each end with two small crocheted loops. These button over tiny pearl buttons which fasten to the top of the chemise. Wouldn't a white cambric or dimity chemise with three sets of shoulder straps in different colored ribbons, made with the crocheted loops at the ends, make a dainty little Christmas gift? I think it would.

Coöperate, of Course

[CONTINUED FROM PAGE 1]

take the place of the individual farmer's watchful eye, careful judgment, and individual initiative.

The old Scotch proverb runs that "the eye of the master fattens the beast." It would be difficult, indeed, to put more agricultural truth and philosophy into a single sentence than has here been handed down to us as the fruit of observation and experience.

All this is not to be construed as opposition to rational organization. Far from it: quite the contrary, indeed. The greatest danger to our really excellent organizations is that too much will be expected of them, and that they may be set at jobs they were never intended to perform, and that perhaps should not be performed.

The idea that the farmer, like the laborer, is out to get his rights, and proposes to fight for them if necessary, must not pervade the agricultural organizations. This idea is not constructive. Indeed, it is eminently destructive not only of confidence, but also of business, as anyone can see who looks about him now at the thousands of unemployed workmen and the other thousands of houseless families, while the country stands in need of nothing so much as homes and steady employment.

THE farmer is by instinct, and his business is by nature, eminently constructive. His organizations, to live, must be the same; and if he does duty by his own business, and helps to maintain rational organizations for the purpose of doing business with other professions and with the public at large, then will American agriculture be fairly profitable to the individual and dependable to society.

The key to all this is now, and always will be, the brain and the initiative of the individual farmer who understands that his business is a unit whose success, whatever helps may be had through organization, depends, after all, mainly upon himself.

Good silage pays big dividends.

NOW That Coupon is Worth $2 on a Famous New Butterfly

More than 200,000 New Butterfly Cream Separators Now in Use.

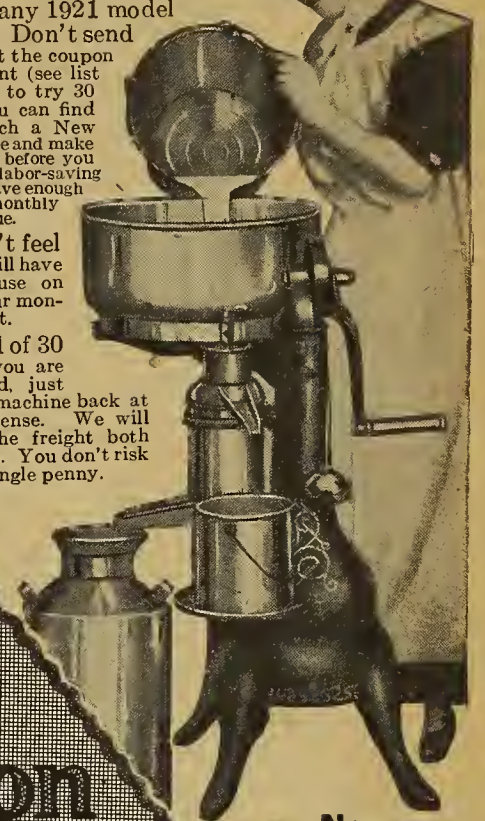
—But You Must Act NOW!

We will accept the coupon below the same as cash for full payment of $2 on any 1921 model New Butterfly Cream Separator. Don't send a single penny in advance. Just fill out the coupon telling us which size machine you want (see list below) and we will ship it for you to try 30 days in your own home. Then you can find out for yourself just how much a New Butterfly Cream Separator will save and make for you. You can see for yourself before you pay a cent how easily this great labor-saving money-making machine will save enough extra cream to meet all the monthly payments before they are due.

In this way you won't feel the cost at all. You will have the Separator to use on your farm and your money in your pocket.

If at the end of 30 days' trial you are not pleased, just send the machine back at our expense. We will pay the freight both ways. You don't risk a single penny.

(9)



—Send No Money—Just The Coupon—Save $2.00

How the COUPON Saves You $2

By ordering direct from this advertisement you save all expense of catalogs, postage, letters and time. And we give you the benefit of this saving if you send the coupon now. Furthermore, isn't it better to have one of these big money-making machines to *use* instead of a catalog to *read?* Wouldn't you like to compare the New Butterfly with other Separators in your neighborhood regardless of price? Wouldn't you like to see just how much more cream you would save if you owned a Separator? We believe you would, so we send you a machine from our factory to try 30 days. Then if you decide you want to keep it the coupon counts the same as a $2 payment. You take that much right off from our factory price on any size Separator you select. For example, if you choose a *$38* machine you have only *$36* left to pay in 12 easy payments of only $3 a month. If you select the *$47* machine you will have only *$45* left to pay in 12 easy payments of only $3.75 a month—and so on.

The Coupon Makes First Payment
And the Separator Itself Pays the Rest

You get the benefit of the great saving in time and work while the Separator is paying for itself. After that the profit is all yours, and you own one of the best Separators made—a steady profit producer the year 'round—a machine guaranteed a lifetime against all defects in material and workmanship, and you won't feel the cost at all. If you decide to keep the Separator we send you, you can pay by the month, or you can pay in full at any time and get a discount for cash. The coupon will count as $2 just the same. The important thing to do now is to *send the coupon,* whether you want to buy for cash or on the easy payment plan. We have shipped thousands of New Butterfly Cream Separators direct from our factory to other farmers in your State on this liberal plan.

No Discs to Clean

The New Butterfly is the easiest cleaned of all Cream Separators. It uses no discs—there are only 3 parts inside the bowl, all easy to wash. It is also very light running with bearings continually bathed in oil. Free circular tells all about these and many other improved features.

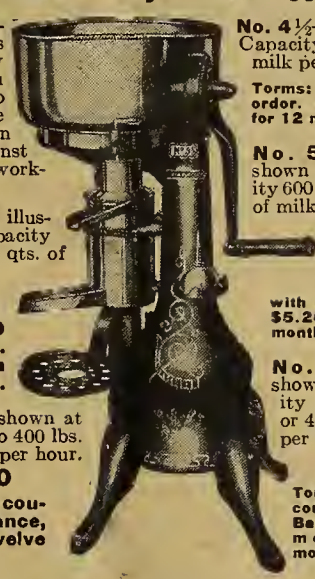
Pick Out Size You Need

Order from this Advertisement on 30 Days' Trial. Use Coupon

You take no risk whatever. You have 30 days in which to try the New Butterfly we send you before you decide to keep it. Every machine we build carries a written Lifetime Guarantee against defects in material and workmanship.

No. 2½—Machine illustrated at left. Capacity up to 250 lbs. or 116 qts. of milk per hour.
Price, $38.00
TERMS: Free $2.00 coupon with order. Balance, $3.00 a month for 12 months.

No. 3½—Machine shown at left. Capacity up to 400 lbs. or 195 qts. of milk per hour.
Price, $47.00
TERMS: Free $2.00 coupon with order. Balance, $3.75 a month for twelve months.



No. 4½—Machine shown here. Capacity up to 500 lbs. or 250 qts. of milk per hour. Price $56.00.
Terms: Free $2.00 coupon with order. Balance $4.50 a month for 12 months.

No. 5½—Machine shown here. Capacity 600 lbs. or 300 qts. of milk per hour.
Price $65.00
Terms: Free $2.00 coupon with order. Balance $5.25 a month for 12 months.

No. 8—Machine shown here. Capacity up to 850 lbs. or 425 qts. of milk per hour. Price, $69.80
Terms: Free $2.00 coupon with order. Balance $5.65 a month for 12 months.

It is Always Best—
to select a larger machine than you need. Later on you may want to keep more cows. Another thing also, remember, the larger capacity the less time it will take to do the work.

ALBAUGH-DOVER CO. MANUFACTURERS 2333 Marshall Blvd., Chicago

FREE FIRST PAYMENT COUPON

ALBAUGH-DOVER CO., 2333 Marshall Blvd., Chicago, Illinois

Gentlemen:—Please ship me on 30 days' free trial, in accordance with your offer in Farm and Fireside, one New Butterfly Cream Separator, size.....If I find the machine satisfactory and as represented by you, I will keep it and you are to accept this coupon as $2 first cash payment for same. If I am not pleased, you agree to accept the return of the machine without any expense to me, and I will be under no obligation to you.

I keep.....cows.

I wish to buy on.....terms.
(Cash or easy payment)

Name.....

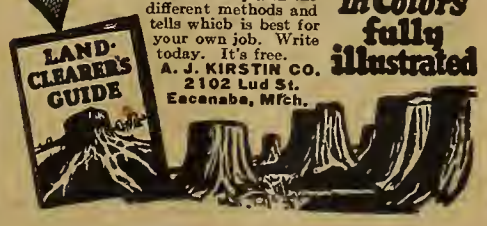
Shipping Point.....

State..... Post Office.....

Name of my Bank.....

New Land Clearing Book FREE

Written by the greatest land clearing experts. It will mean hundreds, maybe thousands, of dollars extra income to you. Tells how you can convert waste land into extra bushels. Your richest virgin bumper crop soil is under your stumps. Remove them. This book explains the different methods and tells which is best for your own job. Write today. It's free.
A. J. KIRSTIN CO. 2102 Lud St. Escanaba, Mich.



80 pages in Colors fully illustrated

"I Cut 27 Cords a Day"

Writes Noah Digge of Jacksonville, N. C., "With My Ottawa Log Saw and In 52 Hours I Sold and Delivered $75 Worth of Wood."

You, too, can make good money with the OTTAWA. Takes the backache and hard work out of wood cutting. Fastest cutting Log Saw built. 310 strokes a minute. Does work of 10 men. Most powerful. Light weight. Wheels like a wheelbarrow from log to log and cut to cut on the log. No need to stop engine—Friction Clutch controls sawblade while motor runs.

Saws any size logs into any length. Good for cutting shingle timber, stave bolts, ice, firewood, blocks, etc. When not sawing use as portable engine for pumping, grinding and other power jobs. Power force feed. 4-cycle frost-proof engine. Magneto igniting, no batteries ever needed. Easy to start and operate. Simple-Durable-Dependable.

OTTAWA LOG SAW

NOW SELLING AT NEW LOW PRICES

Also Tree Faller, Limb Saw, Buzz Saw; Stationary Farm and Shop Engines in 13 different sizes—1½ to 22 H. P.

30 DAYS' TRIAL: Before you choose any saw outfit get our trial offer and free book. The OTTAWA is the original 4-cycle Log Saw and sold only direct from factory.

CASH OR EASY PAYMENTS: Liberal 10 Years' Guarantee backed by largest Log Saw factory in the world.

NOW our new reduced prices are so low any man can easily afford an OTTAWA. Write for these prices at once.

THE OTTAWA MANUFACTURING CO. 970-A Wood St. Ottawa, Kansas

Why rent when you can own a farm?

Tenant Farmers—Fathers starting sons—Young men looking for a future—Farmers who have decided to seek Virgin Soil—Get this Free Book.

This free book tells you why you will succeed in Western Canada. It tells what other men have done. It will put you in touch with your opportunity. Send for it now. It is free—your enquiry will not obligate you in any way. For a real future — investigate. You will find this book interesting as well as descriptive. Send for it now.

Canadian National Railways

Any Man Can Own His Own Farm in Western Canada

In Western Canada, rich, fertile land is within the reach of any man. It is not uncommon for tenant farmers to pay for their new farms with the profits of a few crops. Fathers starting up their sons are able to buy acreage they can't obtain in ordinary overcrowded farming districts.

Men who were never able to make money out of their poor soil or expensive farms, have come to Canada and achieved independence within just a few years.

Canada welcomes such men—for here they can succeed.

Independence! Success!

Here, in Western Canada, Independence awaits you with every advantage at hand—schools, churches, social life, markets—everything you are now accustomed to. It is the land of unrestricted opportunity. Western Canada wants you if you will come prepared to gather the great harvest of a bountiful nature. Here you can share in bumper crops. Wheat averages are high. Rich, black loam, only awaits your hand to yield abundantly. Dairy farming is highly profitable in Western Canada. Warm, sunny summers provide unexcelled grazing—excellent hay. Dry, healthy winters make natural shelter suffice, as a rule.

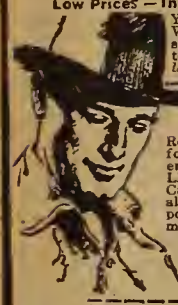
Help You Select Your Farm

This department of the Canadian National Railways will help you select the farm that meets with your needs. Buy in the "cream" of the richest, most fertile wheat and cattle country of America. Own a farm that will actually pay for itself in a very few years. Taxes on land are low—buildings, improvements, animals, machinery and personal property *Are Not Taxed at All.*

Next Spring—Own Your Farm

Be your own man. Rear a future in the rich spaces of Canada. Give your children the advantages they should have. Feel "at home" with the knowledge that all your work is to *your own profit*—that it is bringing to you a reward that can't be taken away.

Low Prices—Increasing Values—Easy Terms



You can still buy land in this last great West for as low as $20 per acre. Yet, since 1915 values have increased materially. Buy now. Terms on "*Selected*" Farms; about 10 per cent cash down, balance in equal payments over a term of years, interest usually 6 per cent.

Reduced Rates and Special Excursions

Reduced railway rates will be made for landseekers and their effects to encourage inspection of the "SELECTED" farms along the lines of the Canadian National Railways. Personally conducted excursions for this purpose also will be arranged. Full information will be sent free on request.

DEWITT FOSTER, Supt. of Resources, Canadian National Rys., Dept. 2169, Marquette Building, CHICAGO, ILLINOIS

Write or mail coupon today

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Please send me free and without obligation to me, complete information on the items concerning Western Canada checked below:

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Why Should You Worry?

[CONTINUED FROM PAGE 9]

into the air, and consequently we have been losing some 700,000 tons of ammonium salts every year, enough to keep our land rich and give us all the explosives we should need. But now they are reforming, and putting in ovens that save the by-products, such as ammonia and coal tar, so in 1916 we got from this source 325,000 tons a year.

GERMANY had a natural monopoly of potash, as Chile had a natural monopoly of nitrates. The agriculture of Europe and America has been virtually dependent upon these two sources of plant foods. Now, when the world was cleft in twain by the shock of August, 1914, the Allied Powers had the nitrates and the Central Powers had the potash. If Germany had not had up her sleeve a new process for making nitrates, she could not long have carried on a war, and doubtless would not have ventured upon it. But the outside world had no such substitute for the German potash salts, and has not yet discovered one. Consequently the price of potash in the United States jumped from $40 to $400, and the cost of food went up with it. Even under the stimulus of prices ten times the normal, and with chemists searching furnace crannies and bad lands, the United States was able to scrape up less than 10,000 tons of potash in 1916, and this was barely enough to satisfy our needs for two weeks!

Yet potash compounds are as cheap as dirt. Pick up a handful of gravel and you will be able to find much of it feldspar or other mineral containing some 10 per cent of potash. Unfortunately it is in combination with silica, which is harder to break up than a trust.

But "constant washing wears away stones," and the potash that the metallurgist finds too hard to extract in his hottest furnace is washed out in the course of time through the dropping of the gentle rain from heaven. "All rivers run to the sea," and so the sea gets salt, all sorts of salts, principally sodium chloride (our table salt), and next magnesium, calcium, and potassium chlorides or sulphates in this order of abundance. But if we evaporate sea water down to dryness, all these are left in a mix together, and it is hard to sort them out. Only patient Nature has time for it, and she only did it on a large scale in one place; that is at Stassfurt, Germany.

IT SEEMS that in the days when northwestern Prussia was undetermined whether it should be sea or land it was flooded annually by sea water. As this slowly evaporated the dissolved salts crystallized out at the critical points, leaving beds of various combinations. Each year there would be deposited three to five inches of salts with a thin layer of calcium sulphate or gypsum on top. Counting these annual layers, like the rings on a stump, we find that the Stassfurt beds were ten thousand years in the making. They were first worked for their salt, common salt, alone; but in 1837 the Prussian Government began prospecting for new and deeper deposits, and found, not the clean rock salt that they wanted, but bittern, largely magnesium sulphate, or Epsom salt, which is not at all nice for table use. This stuff wsa first thrown away, until it was realized that it was much more valuable for the potash it contains than was the rock salt they were after. Then the Germans began to purify the Stassfurt salts, and to market them throughout the world. They contain from 15 to 25 per cent of magnesium chloride mixed with magnesium chloride in carnallite, with magnesium sulphate in kainite, and sodium chloride in sylvinite.

MORE than thirty thousand miners and workmen are employed in the Stassfurt works. There are some seventy distinct establishments engaged in the business, but they are in combination. In fact, they are compelled to be, for the German Government is as anxious to promote trusts as the American Government is to prevent them.

Now comes the introduction of the Stassfurt salts into American agriculture. The farmer in any country is apt to be set in his ways, and when it comes to inducing him to spend his hard-earned money for chemicals that he never heard of and could not pronounce, he—quite rightly—has to be shown. Well, he was shown. It was, if I remember right, early in the nineties that the German Kali Syndikat began operations in America and the United States Government became its chief advertising agent.

In every State there was an agricultural experiment station, and these were provided liberally with illustrated literature on Stassfurt salts, with colored wall charts and sets of samples and free sacks of salts for field experiments. The station men, finding that they could rely upon the scientific accuracy of the information supplied by the Kali company, and that the experiments worked out well, became enthusiastic advocates of potash fertilizers. The station bulletins—which Uncle Sam was kind enough to carry free to all the farmers of the State—sometimes were worded so like the Kali company advertising that the company might have raised a complaint of plagiarizing; but they never did. The Chilean nitrates, which are under British control, were later introduced by similar methods through the agency of the state agricultural experiment stations.

As a result of all this missionary work, which cost the Kali company $50,000 a year, the attention of a large proportion of American farmers was turned toward intensive farming, and they began to realize the necessity of feeding the soil that was feeding them. They grew dependent upon these two foreign and widely separated sources of supply. In the year before the war the United States imported a million tons of Stassfurt salts, for which the farmers paid more than $20,000,000. Then a declaration of American independence—the German embargo of 1915—cut us off from Stassfurt, and for five years we had to rely upon our own resources. We have seen how Germany, shut off from Chile, solved the nitrogen problem for her fields and munition plants. It was not so easy for us, shut off from Germany, to solve the potash problem.

There is no more lack of potash in the rocks than there is nitrogen in the air, but the nitrogen is free, and has only to be caught and combined, while the potash is shut up in a granite prison from which it is hard to get it free. It is not the percentage in the soil but the percentage in the soil *water* that counts. A farmer with his potash locked up in silicates is like the merchant who has left the key of his safe at home. He may be solvent, but he cannot meet a sight draft. It is only solvent potash that passes current.

IN 1916, even under the stimulus of tenfold prices, the amount of potash produced by us as pearl ash was only 412 tons—and we need 300,000 tons a year in some form. It would of course be very desirable, as a conservative measure, if all the sawdust and waste wood were utilized by charring it in retorts. The gas makes a handy fuel. The tar washed from the gas contains a lot of valuable products. And potash can be leached out of the charcoal or from its ashes whenever it is burned. But this, at best, would not go far toward solving the problem of our national supply of potash.

There are other potash-bearing wastes that might be utilized. The cement mills which use feldspar in combination with limestone give off a potash dust, very much to the annoyance of their neighbors. This can be collected by running the furnace clouds into large settling chambers or long flues, where the dust may be caught in bags, or washed out by water sprays, or thrown down by electricity. The blast furnaces for iron also throw off potash-bearing fumes.

Our six-million-ton crop of sugar beets contains some 12,000 tons of nitrogen, 4,000 tons of phosphoric acid, and 18,000 tons of potash—all of which is lost except where the waste liquors from the sugar factory are used in irrigating the beet land. The beet molasses, after extracting all the sugar possible by means of lime, leaves a waste liquor from which the potash can be recovered by evaporation and charring and leaching the residue. The Germans get 5,000 tons of potassium cyanide, and as much ammonium sulphate, annually from the waste liquor of their beet-sugar factories, and if it pays them to save this it ought to pay us, where potash is dearer. Various other industries can put in a bit when Uncle Sam passes around the contribution basket marked "Potash for the Poor." Wool wastes and fish refuse make valuable fertilizers, although they will not go far toward solving the problem.

If we saved all our potash by-products they would not supply more than 15 per cent of our needs.

THOUGH no potash beds comparable to those of Stassfurt have yet been discovered in the United States, yet in Nebraska, Utah, California, and other Western States there are a number of alkali lakes wet or dry, containing a considerable amount of potash mixed with soda salts. Of these deposits the largest is Searles Lake California. Here there are some 12 square miles of salt crust some 70 feet deep, and the brine as pumped out contains about four per cent of potassium chloride. The quantity is sufficient to supply the country for over twenty years, but it is not an easy or cheap job to separate the potassium from the sodium salts, which are five times more abundant. These, being less soluble than the potassium salts, crystallize out first when the brine is evaporated. The final crystallization is done in vacuum pans, as in getting sugar from the cane juice. In this way the American Trona Corporation is producing some 4,500 tons of potash salts a month, besides 1,000 tons of borax. The borax, which is contained in the brine to the extent of 1½ per cent, is removed from the fertilizer for a double reason: it is salable by itself, and it is detrimental to plant life.

Another mineral source of potash is

[CONTINUED ON PAGE 22]

This is Miss Elsie Krasny, seventeen-year-old Topeka girl, who won the title of champion girl milker at the Kansas Free Fair, as she looked in the contest

She's the Best Milkmaid in Kansas

WHEN Phil Eastman, secretary of the Kansas Free Fair, was arranging for his attractions, he suggested to a friend, a Southerner, that a girls' milking contest might be an attractive feature. The Southerner laughed.

"Why, you couldn't get two girls in the whole State of Kansas who would be willing to get out before a crowd of folks and milk a cow!" he said.

Eastman, however, thought he knew the Kansas farm girl, and so he staged the milking contest. Girls who lived more than 100 miles west of Topeka came all the way to the capital city to compete. A seventeen-year-old Topeka girl, Elsie Krasny, was acclaimed the champion milker of the State. The contest was held in the judges' pavilion late in the afternoon. Every available foot of standing room was taken by spectators, women outnumbering the men.

Miss Elsie Krasny, who won the championship title, milked 9.3 pounds of milk in 3 minutes and 28 seconds. Her nearest competitor, Miss Matilda Hermon of Berryton, turned in 19.9 in 7 minutes, but was adjudged not to have handled her task so expertly as the Topeka girl. Miss Krasmy's twin sister, Lillie Krasny, also was a contestant, and won third prize with 12.9 pounds of milk in 6 minutes.

The Krasny sisters live in Topeka, and their parents own 150 acres of rich river-bottom land in the Kaw Valley. The two girls are now in high school, and as soon as they finish they expect to go to the Kansas State Agricultural College.

W. G. CLUGSTON, Topeka.

Doc Delaney Says

[CONTINUED FROM PAGE 8]

when they arrive that all you got to do to make a thing grow is to stick it in the ground, but pretty soon they see that is just the rallying signal to the cutworms and chinch bugs to hold a camp meeting. And when the thing gets up, there is another set of bugs walking up and down outside impatient for their chance, and now they leap at it with blood in their eye.

Setting at home in their apt. the city folks have figgured out what kind of a car they are going to get with their eggs, but after they have been raising them for 6 months they trade for a horse of some mover passing by, and don't hardly sleep none that nt. for excitement.

They never knowed before there was so many diseases in the world that chickens was heir to, and most of them is fatal, and if by some chance some of the chickens live to maturity, a weasel or a pole cat comes along and closes their eyes in death.

THE farmer sets traps and sleeps with a shotgun in his hands, but the chickens disappear just the same. In the middle of the nt. he hears a squawk, and runs out in his shirt tail and Xmas slippers and the chickens look surprised to see him dressed this way, and one of them flutters off the pole and hangs by her neck for a while, and then hits the floor with a cackle, and the farmer goes back to the house thinking that all is rt., but the next morning he sees that 2 of his hens has give up the ghost behind a soap box. He looks for where the weasel or something got in, and buys ½ doz. steel traps, and rubs dust on them, so they won't smell new, but alongside what gets the chickens the Wall St. explosion is as simple as 1 2 3.

And the chickens that ain't killed just seem to die to be contrary, and the crops that wasn't drowned out long ago are eat up by some underhand worm.

They buy a horse that looks like he is going to live until they will have to chew his food for him, but before they get all the corn in he gets a severe case of collic; and if they don't get a good Vet. Dr. that knows his bus. and has got a diploma from one of the best Vet. colledges in K. C., the horse goes to join his forefathers, because it don't pay to get a cheap Vet. Dr., because 9 times out of 10 they do the horse more injury than good.

At first the city folks think they will make monkies out of the farmer, but by the time they have been at it 6 months they find that, after all, maybe they are the ones that should be behind the netting, because a man can't follow farming a lifetime and make a living at it and have a flaxseed for a brain.

THE only kind of person that is using some foreign sub. for a brain is the man who drives past a farm in a 12 cyl. car and sees some weeds growing among the corn and says: "That farmer don't know his bus. If I had that farm I could make a wad of money off it and keep it looking like the White House lawn."

Then you know if you took his brain out without closing the windows you wouldn't ever see it again.

He thinks he would like to play in the new mowed hay and put the fragrant food away in the haymow, but just wait till the first time his mower runs into an ant hill and hear what he says.

And about 2 o'c. in the aft., when the hired man has went to town to get his carbon cleaned, and he has got to heave the hay through the door and then go in and mow it away himself, when the only window is covered with about 6 ft. of hay, and he looks like he has been seining for catfish, then he will wish he was back adding up figgures with a machine. And when you mention brains to him he will think it is something his wf. wants from town.

I have seen too many people from the city come out to the country expecting to get rich, to get very excited over it. I just wonder how their wfs. folks is fixed.

Homelier Than Lincoln

EVEN Abe Lincoln, though never noted for his beauty, had some pride in his appearance. One day, the story is told, while going down the street, he met a man who looked him over closely and drew a gun on him.

"Stranger," the man said, "I swore that if I ever met anyone homelier than I was I'd shoot him on sight."

"Brother," drawled Abe, "if I'm homelier than you I reckon you might as well."

American Legion Weekly.

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As a Hired Man

[CONTINUED FROM PAGE 5]

her. Snubs from such would-be snobs leave a very sore spot in one's memory. This experience caused her to lose a lot of faith in human nature.

I cannot say that the seven months' stay with Oleo Jones added anything to my sentimental feelings towards him as an "honest son of toil." I was to get my pay every thirty days, so after a wait of four months for a division of the cream checks I coaxed a good lawyer to collect some spending money for himself, my wages and some overtime, and the bill for the fresh milk which I got every day from a more civilized neighbor.

Oh, well, you can't expect much from a farmer who will deny his own family the use of fresh milk and cream so that he can see the ciphers grow on his cream checks. There are a lot of men like Margerine Jones.

As a contrast, our stay with Bill Yates, near Deerfield, for three years will always be remembered. We had a very good house and all the land we wanted for a garden, and the time and the team to work it; and our flock of White Wyandottes was the pride of the farm. Mrs. Yates and the children adopted us as part of the family. The youngsters did most of the adopting, and, in spite of all threats, they spent much of their time with Martha, and slept at our house as often as in their own beds at home.

> WE ASKED Mr. Choate to send us a picture of himself to run with his story, so you would know what he looked like. Instead of the picture he sent us this:
>
> "I am so busy watching 800 laying hens to see that none of them jump their board bill, with eggs at 20 cents per, and a garden tractor that requires a perpetual-motion attachment, that I haven't had time to run over to Seattle to have a picture taken. It's no more than right your readers should have an idea of the looks of the critter who is dishing out the beans. But it might be necessary for me to seek work at some future time in a strange locality, and I would hate to have that farmer lead me out and show me that picture pasted on the stable door. Right then and there I would likely have a big job on my hands—or no job at all."

THE two teachers in the nearby school were enthusiastic club workers. No, not the birch or hickory kind that were used on you and me before our courting days, but the boys' and girls' canning, chicken, corn, and pig clubs. My wife's most pronounced failings were canning and music, while my hobby for years has been chickens; so it was not long before we were both drafted.

In this community there were no social bars to climb over—no aërial balcony for the self-elected rural Fifth Avenuers to spend their time gazing down with contempt upon us poor farm workers. Everybody was interested in farm problems, and the hired girl's idea or opinion received just as much respectful consideration as did that of the presiding deacon. Mr. Yates would drop the work at any time to help along the club or community work, and was always more willing to help with the farm work than he was to boss the job. He never tried to keep a man or his own boys on the farm—he simply made it so attractive that they could not be driven away. We would likely still be there but for the fact that when the second boy came home from the agricultural college he took the notion of getting married. Then, of course, we had to move.

Working on farms by the day or month, without having to move the family from town, gave me a more general view of working conditions and I have to smile when I look back on some of those experiences, though at the time they were anything but amusing. I have worked with the best of farmers, and with the worst—at least I hope there are none worse.

One fall I went out to work for J. T. Hanna, that outwardly respectable old pirate and church deacon whom you and I have known since we were kids, but had never worked for before. Chores? Ye gods! Chores are only a restful recreation on that farm—a tonic which J. T. thought would keep me in training. I took two hours of them before breakfast for an appetizer, one at noon to settle my dinner, and at night—oh, well, any old time would do to finish them up.

J. T. could not sleep if he did not have his lungs full of stable odor before he hit the hay. Though he has an auto, an auto truck, and a tractor, the smell of gasoline has not that soothing effect upon him that the cow stable has. If it had, he would have both his boys back home on the run. The hired help is the nightmare of his life. It keeps him working overtime (mentally), and I really believe he is awake scheming how to do, or overdo, the hired man. He will moralize about clean, healthy country life, close to nature stuff, its moral and social influence, and do you out of as much of your wages as he can.

Like a few others that I could mention, J. T. has always catered to cheap labor—the hobo, the down-and-outer, or a prize package out of the bread line; but has found out, like the others, that he cannot afford to let this class of labor experiment with his machinery, the tractor, the dairy, or the feed question. Brains and brawn, with the accent on the brains, may appear to be a new combination in a hired man, but it is essential in this day of up-to-date farming.

Still, J. T. can't see why wages should be any more than they were twenty years ago. When it came to settling up with him, I refused to debate the question, and though I insisted, and got a satisfactory settlement, it did not require much mental effort for me to realize what his boys had to contend with, and why the weekly pay envelope had more attraction for them than their regular pay day, or no pay day at all, on the farm.

Men of this stamp throw a bad light on the better class of farmers.

One year when haying was on, I went out to help—guess I had better not mention his name, or even his post-office, or some one will be sure to recognize him. You know the fellow—the one that is never satisfied with your work—all the other hired help he ever had or heard tell of could do it better than you; finds fault because you are not a mind reader and don't know enough to go ahead with the next job without being told what the job is, and sometimes adds some brimstone trimmings to his remarks.

Mr. Grouch would begin his chant on the wife and children at the breakfast table, just to limber up his tongue; then on the horses as they were being hitched up, to make sure that his vocal organs were in working order for the day; after which it was up to you to encourage and prompt his explosive English. Haying was on, help was scarce, and the weather was hot. The second day was hotter, and Old Grouch's tongue was following the line of least resistance, and discharging more sulphurous fumes than usual.

I HAD promised Martha on New Year's Day to cut out the cuss words. But here I was, 19 miles from Martha, knew all the words, the thermometer registering 110 degrees in the shade, and—I finally impressed it on him that he was out of tune with the orchestra; that he would have to play light on the minor keys and keep time with the tuning fork; that if he persisted in the discord an encore to the hay field would be lacking in the morning, and prescribed a liberal dose of castor oil for his liver's sake. And, say, I have had the greatest respect for castor oil ever since, for I remained with him for the haying and all through the harvest without another rash outbreak. His family, and even the neighbors, noticed the change, for no man was ever known to stay with him so long before, and his wife got real anxious about him, fearing that he might be getting religion or something. Yes, that was he and his family that just now tooted as they went by in their auto. They will be here for dinner. He never comes to town without looking me up, and often brings his wife in, and sometimes the kids, to spend the day with us. As a humanizer, a good jolt of castor oil sometimes does wonders.

I wish you would tell me why the majority of farmers will not encourage the hired man or his own boys to take a special interest in one or more agricultural subjects. The man or boy may show a preference for Jerseys, or Percherons, or Chester Whites, or Barred Rocks, or beans, or dairying, or sweet peas, or the orchard—whatever it is, why not give him a boost?

HILL

Says—RUSH YOUR FURS

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On shipments amounting to $30.00 or more, we will, if requested, hold your furs separate and advise you our best price. If not entirely satisfactory, we will promptly return your furs to you. Could anything be fairer than that? NOTE—If you want your furs held separate, your request MUST ACCOMPANY THE SHIPMENT. Take advantage of this offer. Ship to-day.

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Young stock, bull, crops, vehicles, tools, machinery, etc., included, assuring good income and bright future; near village, convenient live R. R. town; broad fields rich loamy tillage, 30-cow pasture; lots wood, about 100,000 feet timber, 100 apple trees; 9-room house, 14-cow basement barn, silo. To settle affairs only $3000, part cash, easy terms. Details page 10 our Big New Catalog. Just out. Copy FREE.

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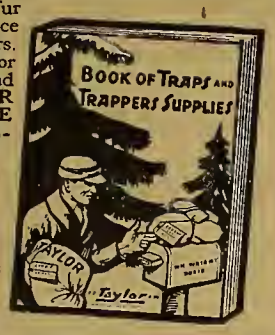

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Horse or Cow hide, Calf or other skins **with hair or fur on,** and make them into coats (for men and women), robes, rugs or gloves when so ordered, or we can make your hides into Oak Tanned **Harness or Slaughter Sole Leather; your calfskins into Shoe Leather;** colors Gun Metal, Mahogany Russet or lighter shade. Your goods will cost you less than to buy them and be worth more.

Our illustrated catalog gives a lot of information. It tells how to take off and care for hides; how and when we pay the freight both ways; about **our safe dyeing process** on cow and horse hides, calf and other skins; about the fur goods and game trophies we sell, taxidermy, etc.

Our Fashion Book, which heretofore has been a separate affair, has been incorporated in and made a part of our regular catalog. **It has Fashion plates** of muffs, neckwear and other fine fur garments; also remodeling and repairing, together with prices and estimates. In ordering catalog, write name and address plain.

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And will pay higher prices than any house in America to get them. We have such a big demand we must have **more** furs quick. Write for new book—Trappers' Partner, regular price lists and tags—all **free.** Don't sell your furs until you get Fouke's prices. Write today.
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Why not let them ride a hobby, instead of a railroad train, a street car, or a taxi? There is too much driving and not enough encouragement, and why is it?

Because I like to read agricultural papers, government reports, and bulletins, Mr. Jackson thought I had too much "book larnin'" to make a good farmer; but it was noticed that for several years he was about the first one to look me up and speak ahead of time for the use of my 180 pounds of bone and muscle to help him out with his harvest and threshing, and keep me hanging around for three weeks at a time to help test out his dairy cows.

Old Jake Miller, at Arden, fired me for getting his boy interested in purebred Hampshires and putting him in the pig club.

Sam Moore carried his jokes so far over my showing his wife and boy how to cull out their non-producing hens that I quit him before the hay was all in.

I THEN went to work for Mr. Adams, Moore's neighbor, and got him interested in cow-testing, and remained with him two months longer than I intended, to help him erect and fill another silo.

A hobby is a much more interesting thing to ride than a suburban tram line.

For several years I have helped Mr. Murray with his work when the rush season is on. He is one of the few farmers who knows how to handle men. He gets his work done with a glad hand because he has the confidence of his men. He is liable to be away from home for several days at a time, and then it is up to the hired man to make good, and perhaps you think a hired man doesn't appreciate responsibility? Well, if the man is any good at all you have another think coming.

Power or Horses?

[CONTINUED FROM PAGE 16]

boy a trade. I paid him $1.50 per day; and, while he cannot do all his repair work yet, he manages his engine beautifully, and now, at seventeen, he can command better wages than lots of men.

My engine repairs this year cost $54, but oil was cheaper, so my breaking was no more expensive than last year, and was done in time to catch the rain, while men with teams had to quit and wait for rain.

I have cleared more money in two years of power farming than in any ten farming with horses. Haven't worked so hard or kept more than one hand. I don't owe anything and am contented and happy.

I wouldn't farm any more if I couldn't have a tractor.

Horses for Me!

Third Prize: Won by Martin J. Hall
R. F. D. No. 5, Fairfield, Iowa

I PURCHASED a tractor in the spring of 1920, and paid $870 for it. With it I put out 65 acres of corn, 55 acres small grain, and then I used it for dragging the roads. That earned me $400. My other farm products were as follows:

Wheat—$2 per bu		$88
Corn—75c per bu		800
Oats—30-40c per bu		140
Dragging roads		400
Sold tractor for		450
Total		$1,878
Tractor cost	$870	
Total expense of running tractor	105	975
Net Profit		$903

This year I farmed the same land as in 1920, with the exception of 30 acres, and also dragged the same roads I did at that time. But instead of the tractor I have six horses, and I find that I can handle my work as easily as when I had the tractor.

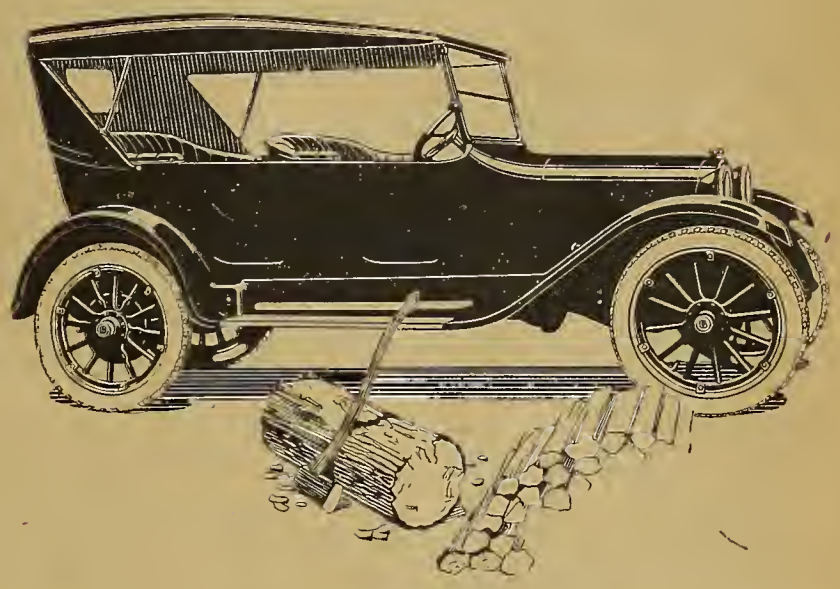
I am sure I will clear more money this year than last, regardless of the tremendous drop in the prices of farm products.

In comparing the prices of 1920-1921 for products sold, I feel free to say, from my experience with tractor farming, that I would not invest in it again. I truly believe any farmer who wants to make money farming will find that horses will clear him.

A tractor is the most expensive thing a farmer can own, and even with a tractor he cannot conveniently do without horses, as there are many jobs only a team can do.

Low operating cost

DODGE BROTHERS
MOTOR CAR



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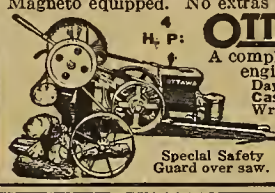

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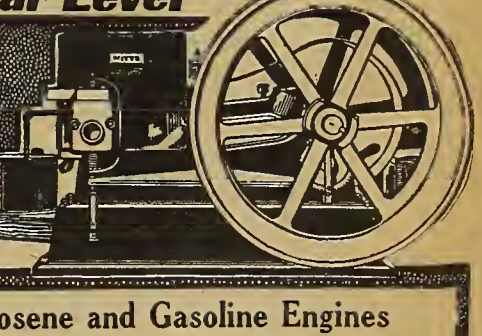

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Why Should You Worry?

[CONTINUED FROM PAGE 18]

alunite, which is a sort of natural alum, or double sulphate of potassium and aluminum, with about 10 per cent of potash. It contains a lot of extra alumina, but after roasting in a kiln the potassium sulphate can be leached out. The alumite beds near Marysville, Utah, were worked for all they were worth during the war, but the process does not give potash cheap enough for our needs in ordinary times.

The tourist going through Wyoming on the Union Pacific will have to the north of him what is marked on the map as the Leucite Hills. If he looks up the word in the Unabridged that he carries in his satchel, he will find that leucite is a kind of lava, and that it contains potash. But he will also observe that the potash is combined with alumina and silica, which are hard to get out, and useless when you get them out. One of the lavas of the Leucite Hills, that named from its native State, Wyomingite, gives 57 per cent of its potash in a soluble form on roasting with alunite—but this costs too much.

THE same may be said of all the potash feldspars and mica. They are abundant enough, but until we find a way of utilizing the by-products, say the silica in cement and the aluminum as a metal, they cannot solve our problem.

Since it is so hard to get potash from the land it has been suggested that we harvest the sea. The experts of the U. S. Department of Agriculture have placed high hopes in the kelp or giant seaweed which floats in great masses in the Pacific Ocean not far off from the California coast. This is harvested with ocean reapers run by gasoline engines, and brought in barges to the shore, where it may be dried and used locally as a fertilizer, or burned and the potassium chloride leached out of the charcoal ashes. But it is hard to handle the bulky, slimy seaweed cheaply enough to get out of it the small amount of potash it contains. So efforts are now being made to get more out of the kelp than the potash. Instead of burning the seaweed, it is fermented in vats producing acetic acid (vinegar). From the resulting liquid can be obtained lime acetate, potassium chloride, potassium iodide, acetone, ethyl acetate (used as a solvent for gun-cotton), and algin, a gelatin-like gum.

This completes our survey of the visible sources of potash in America. In 1917, under the pressure of the embargo and unprecedented prices, the output of potash (KO), in various forms, was raised to 32,573 tons; but this is only about a tenth as much as we needed. In 1918, potash production was further raised to 52,135 tons, chiefly through the increase of the output from natural brines to 39,255 tons, nearly twice what it was the year before. The rust in cotton and the resulting decrease in yield during the war are laid to lack of potash. Truck crops grown in soils deficient in potash do not stand transportation well. The Bureau of Animal Industry has shown in experiments in Aroostook County, Maine, that the addition of moderate amounts of potash doubled the yield of potatoes.

IF SOME mineralogist or metallurgist will show us a supply of cheap potash we will erect him a monument as big as Washington's. We need it, but we are not *yet* so dependent as Germany upon potash. We may be some day, but the bulk of our food crops are at present raised without the use of any fertilizers whatever. Also, the German potash monopoly has been broken.

As the cession of Lorraine in 1871 gave Germany the phosphates she needed for fertilizers, so the retrocession of Alsace in 1919 gives France the potash she needs for fertilizers. Ten years before the war a bed of potash was discovered in the Forest of Monnebruck, near Hartmannsweilerkopf, the peak for which French and Germans contested so fiercely and so long. The layer of potassium salts is 16½ feet thick, and the total deposit is estimated to be 275,000,000 tons of potash. It is a formidable rival of Stassfurt, and its acquisition by France breaks the German monopoly.

When we turn to the consideration of the third plant food, we feel better. While the United States has no such monopoly of phosphates as Germany had of potash, and Chile had of nitrates, we have an abundance and to spare. Whereas we formerly imported about $17,000,000 worth of potash from Germany, and $20,000,000 worth of nitrates from Chile a year, we exported $7,000,000 worth of phosphates.

Whoever it was who first noticed that the grass grew thicker around a buried bone, lived so long ago that we cannot do honor to his powers of observation, but ever since then—whenever it was—old bones have been used as a fertilizer. But we long ago used up all the buffalo bones we could find on the prairies, and our packing houses could not give us enough bone meal to go around, so we have had to draw upon the old boneyards of prehistoric animals.

Deposits of lime phosphate of such origin were found in South Carolina, in 1870 and in Florida in 1888. Since then the industry has developed with amazing rapidity, until in 1913 the United States produced over three million tons of phosphates, nearly half of which was sent abroad. The chief source at present is the Florida pebbles, which are dredged up from the bottoms of lakes and rivers or washed out from the banks of streams by a hydraulic jet. The gravel is washed free from the sand and clay, screened and dried, and then is ready for shipment. The rock deposits of Florida and South Carolina are more limited than the pebble beds, and may be exhausted in twenty-five or thirty years, but Tennessee and Kentucky have a lot in reserve, and behind them are Idaho, Wyoming, and other Western States with millions of acres of phosphate land, so in this respect we are independent.

But even here the war hit us hard. For the calcium phosphate as it comes from the ground is not altogether available, because it is not very soluble and the plants can only use what they can get in the water that they suck up from the soil. But when the phosphate is treated with sulphuric acid it becomes more soluble, and this product is sold as "superphosphate." The sulphuric acid is made mostly from iron pyrite, and this we have been content to import—over 800,000 tons of it a year—largely from Spain, although we have an abundance at home. Since the shortage of shipping shut off the foreign supply, we are using more of our own pyrite and also our deposits of native suphur along the Gulf Coast. As a consequence, sulphuric acid went up from $5 to $25 a ton. And phosphate went up too.

GERMANY is short on natural phosphates as she is long on natural potash. But she has made up for it by utilizing a by-product of her steel works. When phosphorus occurs in iron ore, even in minute amounts, it makes the steel brittle. Much of the iron ores of Alsace-Lorraine were formerly considered unworkable because of this impurity; but shortly after Germany took these provinces from France in 1871 a method was discovered by two British metallurgists, Thomas and Gilchrist, by which the phosphorus is removed from the iron in the process of converting it into steel. This consists in lining the crucible or converter with lime and magnesia, which takes up the phosphorus from the melted iron.

This slag lining, now rich in phosphates, can be taken out and ground up for fertilizer. So the phosphorus which used to be a detriment is now an additional source of profit, and this British invention has enabled Germany to make use of the territory she stole from France to outstrip England in the steel business. In 1910 Germany produced 2,000,000 tons of Thomas slag, while only 160,000 tons were produced in the United Kingdom. The open-hearth process, now chiefly used in the United States, gives an acid instead of a basic phosphate slag, not suitable as a fertilizer. The iron ore of America, with the exception of some of the southern ores, carries so small a percentage of phosphorus as to make a basic process inadvisable.

Recently the Germans have been experimenting with combined fertilizer—Schroder's potassium phosphate—which is said to be as good as Thomas slag for phosphates and as good as Stassfurt's salts for potash. The American Cyanamid Company is just putting out a similar product, "Ammo Phos," in which the ammonia can be varied from 13 to 20 per cent, and the phosphoric acid from 20 to 47 per cent, so as to give the proportions desired for any crop. We have then the possibility of getting the three essential plant foods all together in one compound, with the elimination of most of the extraneous elements, such as lime and magnesia, chlorids, and sulphates.

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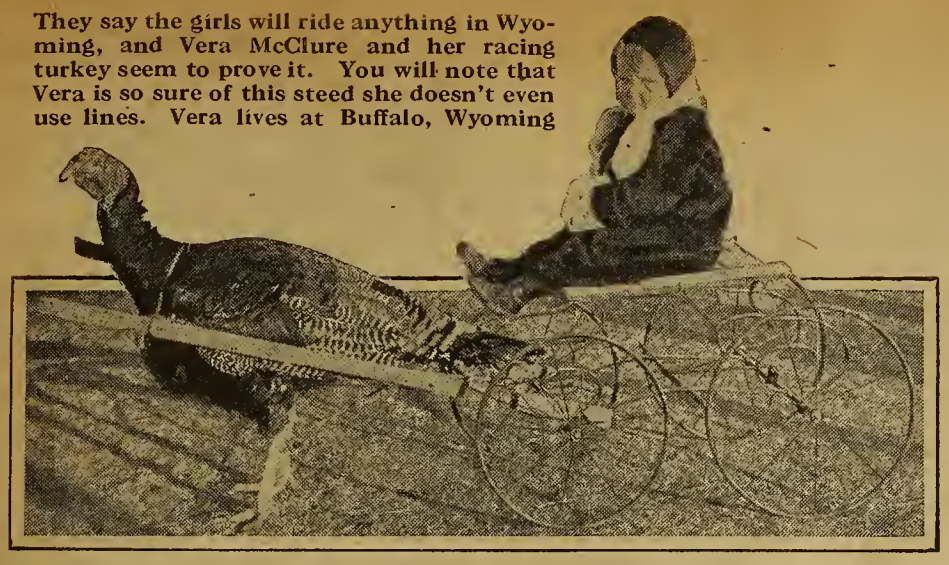

They say the girls will ride anything in Wyoming, and Vera McClure and her racing turkey seem to prove it. You will note that Vera is so sure of this steed she doesn't even use lines. Vera lives at Buffalo, Wyoming

How I Make Good Things With Very Little Work

By Bertha Streeter

OF ALL the advantages afforded by the fireless cooker and the casserole, probably the one I most appreciate during holiday week is the amount of time they afford me to spend with my guests. Just a few minutes for the preparation of a dish whenever I am at leisure, and I know that it will be perfectly cooked when I set it before my family and their friends.

Every home-maker treasures pretty things for her table; every member of the family enjoys good things to eat. Why not please every one this Christmas by adding to the household equipment a handsome casserole and a standard? Let me tell you that it costs so little compared with the pleasure it affords.

And these are only a few of the delicious dishes we share with our friends during the yuletide:

For tuna scallop I flake a pound can of the fish, and mince a medium-sized onion. I peel potatoes, quarter them lengthwise, then slice enough to make a quart. After buttering the casserole, I put in one third of the onion, then one third of the fish, and one third of the potatoes. After dredging lightly with flour and sprinkling with salt and pepper, I repeat the layers until all the ingredients have been used, dot the top with butter, and add two cupfuls of rich milk to cover the potatoes. The scallop is baked uncovered until a golden-brown crust has formed on top, then I cover the dish, and finish baking until the potatoes are tender.

MOCK roast chicken is an inexpensive dish that satisfies our natural desire for meat on a cold day. Put through the food chopper one pound of shin of veal, two ounces of salt pork, and enough onion to make one tablespoonful. Mix this well with one and one-half teaspoonfuls of salt, one-half cupful of milk, and one cupful of bread crumbs. With two thirds of the mixture line a melon mold or a bread pan. Put into a saucepan one cupful of bread crumbs and the same amount of milk. Bring to a boil, stir until thick, and add a teaspoonful of salt, a dash of pepper, two teaspoonfuls of chopped onion, and one teaspoonful of poultry seasoning; beat well. Turn this dressing into the hollow in the mold, and cover it with the rest of the meat mixture with which the mold is lined, then with about six strips of fat salt pork. Bake in the mold half an hour in a brisk oven, then remove the pork and carefully turn the "chicken" out into the casserole or glass pie plate, laying the pork over the top of the mound. Surround the meat with potatoes peeled and cut into eighths. Bake without a cover until the potatoes are tender, basting occasionally with the liquor in the pan. Serve with currant jelly or cranberry sauce.

Cooking in most casseroles can be accomplished on the ledge of the furnace, on top of the coal in the heater, or where the water pan sets on the stove. Such arrangements save a great deal of fuel when the oven is not needed for other baking. I have found that a very strong dish may be set directly over a low blaze on the oil stove.

THE strength of the dish depends very largely upon its initial care. After washing a new glass or china dish or utensil, place it on something that will support it from the bottom of a large kettle and fill the kettle and dish with cold water until it covers the dish by an inch. Then I bring the water slowly to a boil, continue boiling at least five minutes, then I take the kettle from the fire and leave the dish in the water until both are cold. After such treatment, boiling hot rinsing water and other forms of sudden heat are not apt to crack or even craze a dish. In addition to this, I always plan to use the dish the first time for holding food that goes into the oven cold and becomes heated slowly.

Ham baked in milk is excellent for this purpose. Put into the casserole a slice of ham about an inch and a half thick and cover it with cold sweet milk. Bake slowly until the meat is tender—about two hours—and the milk is a thick, rich gravy. This is delicious. Peeled sliced raw potatoes may be added about three quarters of an hour before serving time. Stir them up from the bottom a couple of times, so all may get some of the gravy.

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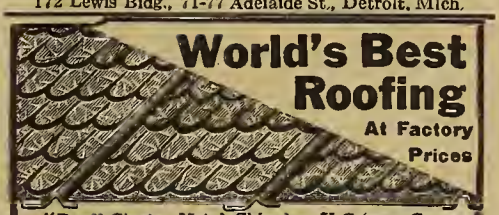

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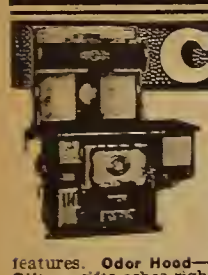

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Wells & Richardson Co., Burlington, Vt.

How My Tractor is Paying for Itself

[CONTINUED FROM PAGE 2]

Mr. Sandberg and his truck he speaks of in this article

better distributed. I can make better turns at the fence corners with it, and thus plow more land. Its engine, instead of being in front, with the weight on the steering wheels, is located more toward the rear, giving the drive wheels better traction and yet not packing the ground.

This machine, a 14-28, is powerful enough to do the heaviest field work, and provides enough belt power to run a small separator owned by three other farmers and myself. Last fall I cleared about $200 in ten days with the tractor and the threshing machine. I get half the gross, the farmer paying for the fuel, and then one quarter of the remaining half, as my part for the machine. We charge three cents a bushel for oats, and five cents a bushel for wheat.

I don't include this in paying for my tractor, because I bought the tractor, in the first place, to do my plowing, and not machine work. That is incidental, but provides a nice piece of change for a few days' work.

My tractor will pay for itself in less than three years. My corn picker paid for itself the first year I had it. It cost me $350, just about the same amount of money I would have had to pay for pickers, paying them seven to eight cents a bushel. It was this demand that made me buy the machine. I never grow less than 100 acres of corn, and, figuring the yield at 50 bushels, I would have had to pay at least that $350 to the men. Now my expense is nothing, for, aside from what I pay a boy to drive the team, myself and another man do the husking much faster than the pickers.

These corn pickers are great machines, but they ruin a field as far as pasturing is concerned. But since I'm not a cattle or sheep man, the feed in the stalk fields doesn't especially interest me, aside from what the horses and milk cows might pick out of it.

THE third member of my power family is a one-ton pneumatic-tired truck. It is a great machine, and the tires are the right kind, for they are oversized and stand up well, even though our roads do justice to the reputation Illinois has for muddy highways.

Some farmers object to pneumatic tires in that driving in ruts wears them out on the sides. This isn't true if they are oversize, for, when pumped to capacity, they don't spread out on the side when loaded, so there is no contact with the rut. They make easier riding, cut depreciation, and give greater speed, a valuable asset if you live any distance from town.

Though it is guaranteed one-ton capacity, I seldom carry less than one and one-half tons, for I believe its reserve power is big enough to take care of the additional weight. At any rate, it gets over the road in good time, and does the work of many teams. Here is one page out of its book of performances:

The boys were picking corn, and while an overhead system loaded the truck with oats, I unloaded a wagon of corn for them. Then I hustled the oats seven miles into town, and brought back one and one-half tons of cottonseed meal. I again unloaded corn while oats were being put into the truck, and repeated the performance of bringing back cottonseed meal. A neighbor wanted me to haul some hogs to Walnut, a distance of 11 miles. Not stopping for lunch, I dashed over there with about a ton of hogs, and on my way home went back to town for more cottonseed. This unloaded, I again filled the truck with oats, helping the boys unload corn in the meantime, went to town, and brought back more cottonseed in time for supper.

In all I traveled 78 miles, and hauled 320 bushels of oats, six tons of cottonseed meal, and a ton of hogs, in addition to unloading three loads of corn. A nice day's work, I'd say. This cost me 8 to 10 cents a mile, and I got $4.50 from my neighbor, so that I paid for the day's gasoline, at least.

Power farming, as I see it from my own experience, is a paying proposition, *provided one has need for the machines;* but when it is practical it pays big dividends in time, labor, and money saved. One good way to find out how you can motorize your particular farm to the best advantage, if you don't know, is to talk it over with your county agent or the engineering expert of your state department of agriculture.

Areva Van Huss

[CONTINUED FROM PAGE 4]

the skin? What's he looking for? The yellow pigment. This is characteristic of the Guernsey—its yellow secretions. They are taken as an indication of richly flavored milk and cream, and these are the Guernsey's stock in trade. The place of the Guernsey therefore becomes one of catering to a fancy milk or cream trade. She excels where quality of the product is appreciated and paid for. And that's why, unless I miss my guess, Areva Van Huss and the calf club of which she is secretary will some day have Boone County, Indiana, on the dairy map as a community famous for the production of better butter and quality cream.

The Great Hinckley Hunt

[CONTINUED FROM PAGE 8]

which were too terrified to put up a fight.

Quite a number of dogs, brought by boys and men who hadn't fire arms, were released, and chaos broke loose within the ever-closing circle. Frightened deer scampered frantically about, only to be shot down as they approached too close to the line of hunters. It soon became too dangerous to the hunters for any more promiscuous gun fire, so the most experienced riflemen were selected and sent toward the center to finish all the remaining bears and wolves.

FINALLY, a large portion of these animals having been dispatched, the hunters nearest the center scaled trees, and from the branches took pot-shots in order not to endanger those in the circular line, which then advanced with cautions to fire only on animals which had succeeded in passing through the lines, though this wasn't a frequent occurrence. Soon the high banks of the west branch of the Rocky River, then frozen, were reached by the advancing lines.

The high banks and rugged territory afforded excellent hiding places for the remaining terror-stricken game, which was scared out in countless numbers into the range of the hunters in the trees.

Finally, late in the afternoon, the slaughter ceased, as all the game was killed. The wild turkeys had saved themselves by the wing route, which didn't trouble the settlers, as they were an important item in their meat supply. One was killed by a farmer with a hayfork as it flew low over his head. Several deer were killed with pike poles, hayforks, and the like, as they tried to jump the circle.

ORDERS were given to bring all the slaughtered game to the center. This was quickly done by the old men and boys with teams, which had been kept well up to the circle. A count revealed the fact that the day's bag was 17 wolves, 21 bears, and 300 deer.

Soon the scalping of wolves was in full swing, as there was a bounty of $15 on each one. As soon as the scalps were all secured, a man was chosen to carry them out and purchase supplies with them.

He returned before dark, and over four hundred men were awaiting his coming, a large number having been obliged to return home in time to do the chores. The supplies mentioned were set on one head, and the other head was quickly knocked in with an ax. Tin cups were ready in a hurry to sample the barrel. Whisky? Yes, but not the barbed-wire kind. My grandfather said it was nearly as clear as water, and about as harmless those days.

There was one large, black bear much bigger and fatter than any of the others, so he was hastily prepared for a barbecue, and was already being roasted when the barrel arrived. The men, having anticipated just such an ending to the day, had brought a supply of bread, cakes, salt, and the like with them, and, with an ample supply of bear steak and venison, they enjoyed a rare feast and a night of celebration over the success of the hunt. All accounts agree that among the entire crowd of frontiersmen assembled that night not one became intoxicated.

THE night passed only too quickly, and before the campers realized it a beautiful Christmas sun was pouring down upon them. As the morning dawned and clouds covered the sun, stopping a threatened thaw, numerous sleighfuls of pioneers from the surrounding settlements came to see the game and help celebrate the event, as well as get acquainted with their scattered neighbors. Well, the more that came the louder grew the cheering that echoed through the forests, and it was well into that beautiful Christmas day before they began to think it was time to return home.

Thus ended what was probably the biggest, best managed, and most successful hunt of its kind ever staged in the State of Ohio, or, perhaps, even the United States.

For the first time in history the consumers number 60 per cent of the population of the United States, and the producers 40 per cent. That is the great problem agriculture is facing. DR. H. A. MORGAN.

Prize Contest Announcement

How I Keep My Children Busy Who Are Too Young for School

WHAT to do with the kiddies who are not of school age, or who are too far from the schoolhouse to go, is a problem that all you farm mothers face at some time or other. We know this is true because we often get letters from parents asking about books and games to keep "little Willie" or "wee Mary" happy and out of mischief in their "spare time." If you have any ideas of your own on the subject that you have *used*, let's have them.

We will pay $10 for the best letter, telling how *you* keep *your* children busy and happy; for the next best letters $7.50 and $5, and $2 for all other letters that are printed. Give essential details, but keep your letter to 500 words if possible. Photographs of your children or yourself will add to the value of your letter. This contest closes December 31st. Enclose stamped self-addressed envelope if you want your letter back.

Address Contest Editor, FARM AND FIRESIDE, 381 Fourth Avenue, New York City. THE EDITOR.

The very first snowball, well aimed, may do the trick

A Jack Frost Party

By Ruth Plumly Thompson

WINTER is the jolliest time of the year for parties, and a Jack Frost frolic, whether for boys and girls or grown-ups, is great fun, especially if one is fortunate enough to live on a farm. Send out your invitations on cards decorated with snow men, polar bears, or anything suggesting winter. They might be worded thus:

Jack Frost's a bluff chap,
And a rough chap—and hearty,
But put on your mufflers
And come to his party!
The wind has a nip,
But the colder the weather
The warmer your welcome.
Let's all get together
At three o'clock, [date].

A clear frosty day, after a heavy snow, is an ideal time for your party; and if you have a bobsled to collect your guests, so much the better. A large snow man in the front yard, with a big welcome sign around his neck, will put everyone in a good humor. As they will be rather chilly from the ride, take them into the house to warm up. The house might be trimmed with greens, and a blazing log fire will add to the cheerfulness. A cup of steaming cocoa will prepare each guest for the bout with Jack Frost, but do not let them take off their hats and coats and, as soon as the last cup is empty, have someone blow a horn from the outside, and tumble everyone outdoors.

For the first stunt announce that they have ten minutes to find the north and south poles. Beforehand, you will have tied — not too conspicuously — to the branches of the trees two of the largest peppermint sticks obtainable. Give them a definite boundary to hunt in, and tell them to look high. The finders of each pole might receive a prize. After the poles have been discovered and the prizes awarded, line up your guests for a shovel race.

For this race, arm each one with a shovel and place them about four yards apart. At a given signal they start shoveling a path. At another signal they stop, and the person who has shoveled the longest path is winner and receives a box of candy or a real shovel. To console the others, candied apples on sticks might be passed around and, while they are eating, an explanation of the next game can be given.

In this next game, called Off With His Head, the object is to behead the snow man. Each may have one shot at him with a hard snow ball, and while those coming last have the best chance, the very first try, if aimed straight and thrown hard enough, may do the trick. Instead of being rewarded, the person knocking off the snow man's head must make him another.

A sliding contest may come next on a long slide prepared beforehand. To all those landing right side up at the end, some funny little prize may be awarded. Then will come the grand snowball race.

Line up the runners, and give to each one a shaved-ice snowball on a piece of heavy paper. The one reaching the goal line first with his snowball on the paper wins. Since snowballs have a way of sliding off the paper, this race will be a very merry one. More outdoor games will no doubt occur to you, but the chances are that your guests will be quite ready for a warm-up at the grate fire. After their coats and hats and rubbers and boots have been taken off, give each a paper and pencil, and try their wits with a Jack Frost puzzle.

The winners might be rewarded by little tubes of cold cream to keep off Jack Frost's chaps.

EVERYONE will now be ready for Jack Frost's feast. You might serve cafeteria style or have a decorated table. If you have a table, you might use as a centerpiece a large mountain of white pop corn, with a peppermint pole flying a tiny American flag. A large pop-corn ball tied with green ribbon at each place makes a pretty table. Or you may have a real north pole centerpiece. In a large flat pan place a big jagged piece of ice. Floating in the water around this iceberg, there might be a little toy boat labeled the "Peary." The edges and outside of the pan are covered with white crêpe paper sprinkled with snow powder.

For favors have cotton snow men; toy polar bears, reindeers, and ships. Hot chicken pie and cocoa with light biscuits, ice cream with chocolate sauce, and a big Jack-Frosted cake will prove a delightful feast for the hungry company.

NOTE: A Jack Frost Puzzle and additional material for the Jack Frost Party will be sent upon receipt of a stamped self-addressed envelope. Address, Entertainment Editor, FARM AND FIRESIDE, 381 Fourth Avenue, New York City.

$10 For Your Farm Name

IT IS now possible, for the first time in this country, for you to protect your farm name by having it trade-marked. At first thought this may not seem very important. But it is—especially if you are now marketing a product with your farm name on it, or if you plan to some day.

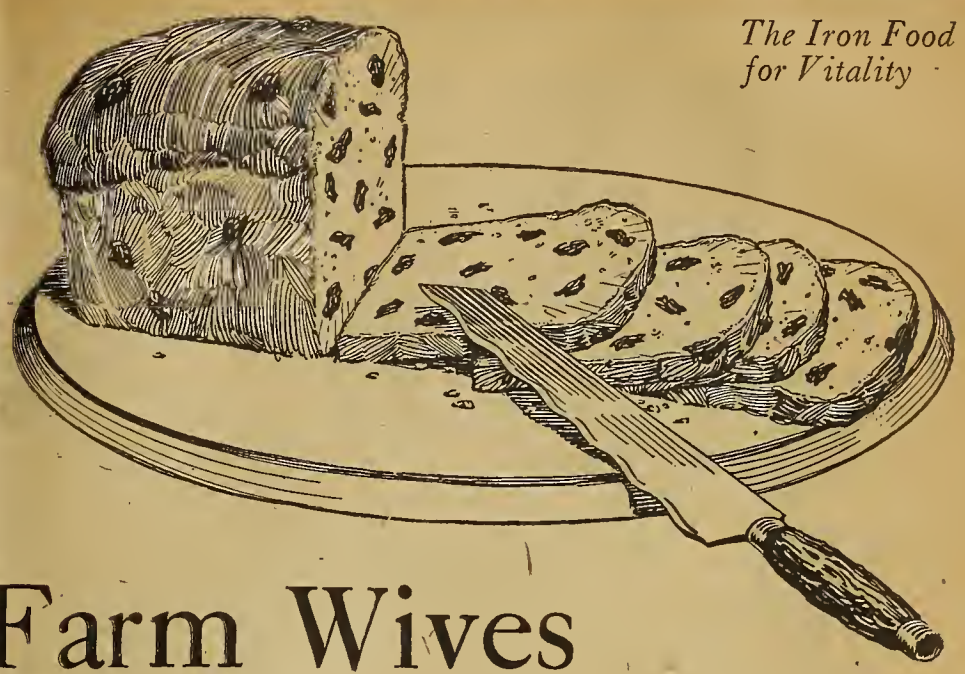
Suppose you are selling apples, butter, sausage, eggs, poultry, vegetables, or any other farm product in a package or box on which your farm name is printed. After a while that name comes to mean something to the people who buy your product. If your stuff is good, they will call for it by that name. You may even be able to get a higher-than-market price.

Now suppose some other fellow decides that he likes your name. He uses it to get your trade, or destroys confidence in your product by selling inferior stuff. If your name is trade-marked, you can stop this; otherwise you can't do anything. Perhaps you ship your product all over the United States. Your farm name is, say, Clover Dell. For all you know, there may be a hundred Clover Dell farms in the United States. If you trade-mark your name, you *alone* can use it. This applies particularly to coöperative shipping associations.

You can't trade-mark a name unless you have used it in a particular style on some kind of goods which you have been selling for at least *one year*. The fee is $10.

If interested, you can get further information by addressing W. I. Wyman, chief clerk, United States Patent Office, Department of the Interior, Washington, D. C.

A. S. W.



The Iron Food for Vitality

Farm Wives Save Two Ways

TRY this for the next two weeks:—Let every other loaf of bread you bake be *raisin* bread. Note how your men take to raisin bread. Note that they eat *more* bread and less of the more expensive foods. You'll save more expensive foods and save left-over bread.

The Christmas Pudding made with "Christmas Bread"

And Note This Too

See also how you can use the left-over raisin bread—when there is any—in delicious raisin-bread pudding.

No matter if your men have frowned on bread pudding. This is raisin-bread pudding! The luscious fruit-meats make it a *new dish* with new appetite appeal. Use plain bread in the same way—simply add the raisins when you make the pudding.

Do this and you'll have no further waste of left-over bread.

Raisins add nutrition as well as flavor to scores of foods—1560 calories of energizing nutriment per pound. So they're ideal food for men who work hard all day.

Bread Pudding

¾ cup Sun-Maid seeded raisins, 2 eggs, ½ teaspoon salt, butter size of an egg, ½ cup sugar, cinnamon to taste, ½ large loaf stale bread, 2 bananas or apples.

Soak the stale bread over night in water. When time to make the pudding press as much water as possible from the bread so the bread is about the same consistency as dough, then take a fork and get all lumps out. Do not leave the crust if it cannot be mashed to the same consistency as the bread. Add well beaten eggs, salt and stir. Add raisins mixed with the butter. Put into dish in layers, covering each layer with sliced banana, sugar and cinnamon. Bake in slow oven until brown. Serve with whipped cream.

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Sun-Maid Raisins are made from California's choicest table grapes. Cured in the sun. Packed in sanitary packages in a great, glass-walled, sun-lighted plant.

They are clean, sweet, wholesome American raisins—the kind you know are good. All dealers sell them. Insist on Sun-Maid brand.

Three varieties: Sun-Maid Seeded (*seeds removed*); Sun-Maid Seedless (*grown without seeds*); Sun-Maid Clusters (*on the stem*).

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Please send me copy of your free book, "Sun-Maid Recipes."

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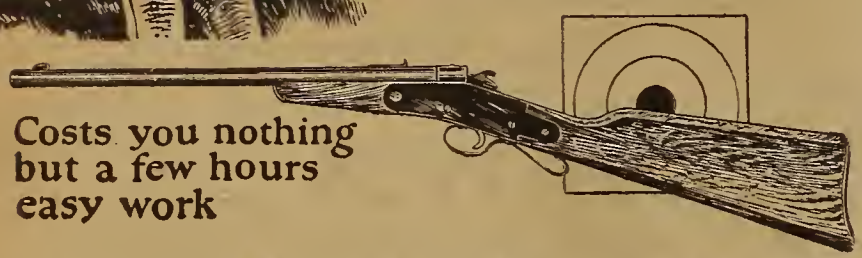
DAN BOONE'S RIFLE CLUB



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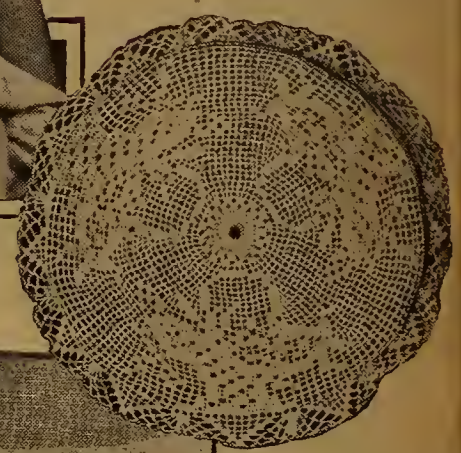
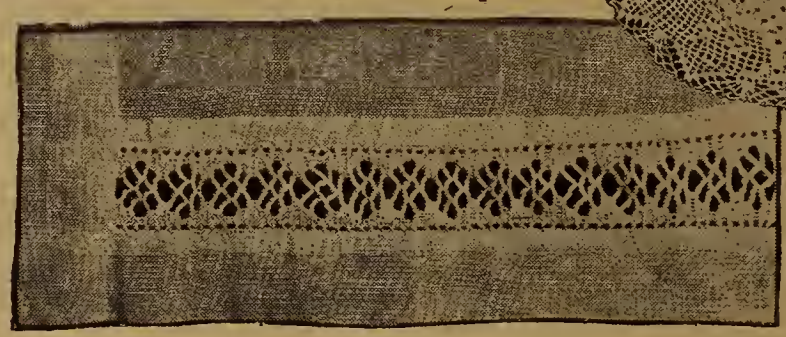
THIS cunning bib in filet is very quickly made, and while the teething baby will pay little attention to the chicks, they may help the older youngster remember his bib! Many mothers make the separate pads to go under these bibs of old table linen.

AND here's another easy-to-make article. Dressed up in this basket-adorned cover, the old hot-plate pad becomes a beauty spot on the table.



DIRECTIONS for making these designs will be sent upon receipt of ten cents in stamps. Order No. FC-144. Address Fancy-Work Editor, Farm and Fireside, Springfield, Ohio.



THIS curtain trim has the look of old Norwegian cutwork, but it is made with a crochet needle, and will withstand the wear of long washing.

Catch Crops

[CONTINUED FROM PAGE 11]

or about 1,000 pounds, for thirty-two days, when a half-ration of grain was added.

The great value of soy beans as a crop for hogging off has been clearly proved by the experience of many farmers in every part of the South. The evidence from experiments is equally strong. I have given here some typical examples of the pork-producing value of this plant, taken from the records of experiments made on sandy upland soil at Auburn, Alabama.

Shotes turned on soy beans when the pods were still green, and eating the leaves first, and then the stalks and seed, required only 157 pounds of corn per 100 pounds of growth. Another lot of pigs, fed corn alone in a dry lot, required 456 pounds of shelled corn for the same result. Here was a saving of 299 pounds of corn for every hundred pounds of growth of shotes. In this case an acre of soy beans, with a thin stand, took the place of 19 bushels of corn.

In other years, when there was a better growth of soy beans, they supplemented by corn the rates of a quarter, a half, and a three-quarters ration of grain. Under these conditions an acre of hogged-off soy beans took the place of 44 bushels of corn for the hogs receiving the quarter-ration of grain; 41 bushels of corn where a half-ration of grain was fed; and 63 bushels of corn in the three-quarters grain ration. This was on upland capable of yielding about 30 bushels of corn to the acre. Equally striking is the saving in the amount of corn required to produce a 100-pound increase in weight shown by the following figures:

	Lbs. corn per 100 lb. growth	*Corn saved by soy beans*
Corn alone (in dry lot)	609	...
Soy beans and ¼ corn ration	68	531
Soy beans and ½ corn ration	138	471
Soy beans and ¾ corn ration	175	434

The daily gains per shote were on corn alone, only .37 of a pound; on the quarter grain ration, 1.1 pounds; on the half-grain ration, 1 pound; and on the three-quarters grain ration, 1.33 pounds.

The soy bean is better hogged off in August and September, when its green leaves add to the feeding value, but hogs can be fattened throughout October, and even up into November, on feeds of matured soy beans. The soy bean is thus ready for feed at the same time as corn, and the hogging-off of these two crops at the same time is the prevailing method followed by leading hog raisers in the northern half of the Cotton Belt—that is, outside of the territory where the peanut is the fattener.

Nearer to the Gulf of Mexico, the peanut has taken the lead over all other crops as a hog feed. I leave the story of pork from peanuts for a later issue of FARM AND FIRESIDE.

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Long-Staple Cotton Farmers

[CONTINUED FROM PAGE 13]

spillways, the length of the dam is 1,125 feet. For the first time, during the spring of 1915, and again at other times, the water flowed over the spillways to a depth of 11 feet, creating two wonderful waterfalls, each 250 feet high and having a combined width of 425 feet. The water stored in the lake when full totals 1,367,305 acre-feet, or enough to cover the same number of acres with water to the depth of one foot. There are 781 miles of main canals in the Salt River Valley served by water from the system, and there are approximately 5,500 farmers on the lands within the project.

THE big dam at Roosevelt checks and stores the waters of the Salt River and Tonto Creek, and in proper quantities allows it to return through the sluice gates to the bed of the river, where it flows on, taking up in its course the waters of the Verde River, and then heading for the diversion dam at Granite Reef. Here the flow of the three united streams is turned into great canals on the north and south banks of the river. The Granite Reef Dam is one of the largest weir dams in existence. It is 38 feet from base to crest, and is 1,100 feet long.

Such is the structure on which rests the agriculture of the Salt River Valley. At the present time 216,000 acres of the valley farm land receive their water from the Salt River project; the other 80,000 acres come under other minor irrigation works, including pumps. Quite an agricultural growth, one will agree, since a celebrated frontiersman, Jack Swilling, built the first irrigation ditch in the valley in 1867, and since the big irrigation project began to function less than a decade ago.

In 1919 the Salt River Valley produced agricultural products to the value of $36,225,200; this in addition to livestock, poultry, and the like, to the value of $5,000,000, and by-products worth another $2,000,000, which also may be included under the head of agriculture. The importance of cotton in Arizona agriculture may be seen from the fact that in the total value of agricultural products, that year, long-staple cotton led with $20,000,000. Alfalfa came second, far behind, with $7,740,000. Grain sorghums were produced to the extent of $1,350,000; wheat to the value of $1,215,000. Citrous fruits ranked fourth, not quite a million dollars in value.

It is when you think of the returns per acre, however, that agriculture in the Salt River Valley assumes a real glamour. The production of citrous fruits, oranges, and grapefruit averaged a return of $408 to the acre. Cotton averaged a return of $220 an acre in 1919; cantaloupes, $210 an acre. Other crops gave varying returns, of course.

The beautiful part of farming in the valley, of course, is the fact that no fertilizing is required; at any rate, not yet, nor for some time to come. And Arizona agricultural products have more than once occasioned comment for their high quality.

That long-staple cotton should come to rule the agricultural world in Arizona was natural, and one can hardly blame the farmers who risked their all on it in 1920. But the complete rule of cotton in the Salt River Valley will be broken, for a few seasons at least, as a result of the non-existent cotton market in the last season. Alfalfa and dairy cattle will come back, after being driven from their high place in the valley a few years ago. Now that the danger of a one-crop system has been experienced, farmers will not take chances in the future, and will follow diversified farming to varying extents. The cotton acreage is expected to fall off sharply this season.

The drawbacks of the rule of cotton, however, could be seen even when the cotton fever was at its height. The dairy industry, once an important one, was almost wiped out. Creameries were unable to get milk. The same with produce.

The valley formerly raised a great part of its own produce, and exported large quantities of the green stuff to mining towns in the State. By 1920, produce-growing in the valley had decreased until only the Chinese were left in the industry, even Japanese taking to cotton. Vegetables and small fruits once raised in the valley were shipped in. It is estimated that the yield of produce truck, vegetables, and small fruits was 40 per cent less in 1920 than in 1919. Cantaloupes and citrous fruits managed to hold their own.

IN THE last few years cotton has been the all-engrossing topic in the valley. Before the slump came it was the prosperity that cotton brought. One heard stories of this man or that man who went in on a shoe string and made a lot of money. Now he had more land, and a motor car, and was able to spend every summer on "the coast."

Just at present, however, one is hearing the other side of cotton. Where one used to hear only of successes, one now hears of the failures. In the future, I believe, the valley will be an agricultural region rather than a cotton region. Only real cotton land will be planted to cotton, and even then farmers will grow other products as well. They have found it expensive to put all their eggs in one basket. Dairying and alfalfa and grain and produce will increase in importance; men will be satisfied to take a smaller profit, with safety, instead of try to get rich quick on one crop.

Moreover, people will not be attracted to Phoenix by stories of easy money in cotton, and those who come will be prepared to work hard for what they get. You used to hear that people came to Phoenix either to make money, or for their health.

And lest anybody think I am boosting Phoenix, let me here pause to declare that I would never counsel anybody to come to the Salt River Valley except for one of three things: to see the country, which is well worth seeing; to spend one winter, for the winter climate is excellent; or to make a home and stay. In the latter case he will find it no better than any other place, for every country has its disadvantages. One shouldn't go to Arizona or any other region expecting too much.

Here is a fair sample of the average stand of long-staple cotton grown in the Salt River Valley. Notice the height of plants compared to the man

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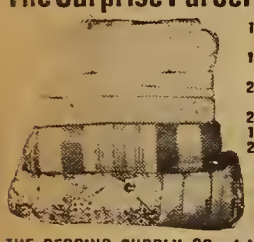

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Neighbor's Kindness

[CONTINUED FROM PAGE 3]

He thanked her and went on, but the incident was pleasant to his memory.

"What'd I tell you, Harvey?" he said. "Round here they're reg'lar folks. M-m-m-m, some gingerbread!"

He had gone perhaps a mile and a half farther when the gently curving road took a swift turn to the right, dipping down into a wooded hollow, and, as he followed, he came presently to a wide and shallow stream, bordered by trees that leaned toward it tenderly, edged by dipping alders and wild roses in flower, shadowing in beauty its reeded margins.

Harvey stopped and stared, gloating. "Old man Watts, his creek, I bet two million dollars, cash money,—and I'll say it's worth it, and a nickel to spare."

He leaned on the substantial concrete coping of the bridge and looked into its golden sunlit shallows, and its occasional deeper pools where minnows could be faintly seen, their tiny, slender straightness making a shifting pattern above the sandy bottom.

"Wisht I knew some poetry," said Harvey Chester to the minnows. "I never saw anything that looked so good to me in all my young life."

AT LAST he roused himself and stretched out his hands.

"Right in front of me's south and back of me's north. Then east is on my left hand and west on my right. Here goes for the east and south."

He passed on over the bridge, and at the first farm beyond he turned in at the gate.

"This must be it," he thought. "Funny—I oughta feel kind of worked up, but I don't." Yet he could not help a faint excitement.

The house was set well back from the road, and the lane that led to it was bordered by black cherry trees. On each side lay fields of corn, the tender shoots growing lustily. The dwelling was low and old, but not neglected nor tumble-down. Tall maples stood around it, and at the side was a garden with a whitewashed fence with pointed pickets.

Harvey looked at it all fondly.

"A right pretty place," he murmured. "And, hello,—they got a dog." For a big collie came out stiff-legged and suspicious, and paced beside him, well out of reach. "You sure do remind me of an old M. P., kid!" said Harvey, and stretched a friendly hand. But the dog drew back and growled softly in his throat, his ruff bristling.

"Who's that?" asked a querulous masculine voice, as they rounded the corner of the house, and Harvey saw a small man sitting comfortably in a rush chair on the back porch, pipe in hand.

"Good morning," said Harvey affably. "Whose place is this?"

"It's mine, James Rumbly's. What you want?"

"Well—need a hired man, Mister Rumbly?"

The little man stared and rubbed a sparse gray beard nervously.

"We-ell, I don't know exactly but we *could* use another hand," he temporized. "Want to work stiddy all summer?"

"Yeah."

The other fidgeted and sucked on his pipe.

"If Laviney was only round—but I reckon she's out in the field. Laviney?" he called shrilly; but there was no answer.

"You better go out and talk to her," said the little man. "She's my da'ter, and manages pret' nigh everything on the place. I ain't got my health," he added in a spirit of evident pride over his infirmities. "You go right on down past the barn, turn off to your right, and go on till you see her. Shep here'll show you. Shep, go find Laviney! Hear me? Go find Laviney!"

The dog promptly led the way, and Harvey Chester, without further word, followed. The little man subsided to his pipe and his ease, his puckered eyes watching the retreating stranger curiously.

The dog marched with intelligent sedateness, now and then turning to see if Harvey followed, and they came at last to a field of strawberries where some half-dozen negroes were picking. A rude shelter, nothing more than a roof upheld on four posts, protected the half-filled crates from the sun, and there Harvey Chester saw a girl, a tall, fair girl, sunburnt and flushed, with braids of tawny hair twisted round her head, whose eyes had the same strange brownish-yellow color, deepened and darkened and impenetrably grave.

Harvey took off his cap.

"Your father sent me out to you," he began. "I'm looking for work."

The girl appraised him.

"Ever work on a farm?" she asked.

"No'm."

"Anybody send you here?"

"No'm—I saw this place, and it looked good to me, and I thought it'd be no harm to come up and ask."

"Where'd you come from?"

"Philadelphia."

"Are you a tramp?"

"No'm," he smiled his engaging boyish smile. "I got a good trade; I work in the ster'typing department of a newspaper, but—I don't know—summer come, and it was so black and hot in the shop, and I got kind of restless, so I thought to myself I'd go work on a farm all summer—and here I am."

THE girl considered him.

"We need help awful bad," she said. "And you look strong. Ever handle animals?"

"Some."

"How much wages did you expect?"

"I'll leave that to you. I know you'll be fair." And as he said the words he had a curious sense of their utter truth.

Still the girl hesitated.

"The only thing is, I don't see how I can board you. I've not got anybody in the kitchen, and, though I can do for Pa and me, a man working needs hearty food, three times a day. But maybe they'd board you over at the next place. It's not far. And you could sleep up at the house, if you didn't mind being fixed so—I mean living at two places at once."

"I don't mind," said Harvey blithely. "Any way you say will do me."

"And of course I'd allow it on your wages—for your board. D'you want to go to work right away?"

"Yes'm."

"Well, then, look here. You take the berries as the darkies bring them up, and give out the checks—see, these little pasteboard cards. Watch out that the baskets are all well filled and look right—no leaves or stems or trash. And then set 'em in the crates, and put the divisions in—so; and when a crate's full, fasten down the lid, and stencil it. Here's the stencil; you just hold it down and rub through with shoe blacking. That marks it for ours, you see. I'll go get the truck and come right back, and then we can load up and get off to the train. Can you drive a fliv?"

"You betcha." He was strangely glad that he had at least a needed ability to offer.

"All right—that's fine. I'll go right on—time's short. But say, what's your name?"

"Harvey Chester."

"Chester!—sounds as if you ought to belong round here. My name's Laviney Rumbly, and I'm the fifth to carry it. Now—you und'stand what you got to do? All right."

She was gone, straight and swift, leaving Harvey with a sense of satisfaction, such as one feels after a drink of cold water, or the sight of something clean and beautiful. And also he felt that she had withheld judgment, and that in her eyes he had yet to prove himself a man useful and strong. He went eagerly and efficiently to work at the berry crates. He'd show her. And now and then he smiled to himself with secret satisfaction. Some girl! Some place! Some neighborhood!

PRESENTLY she returned in a decrepit, wheezing little motor truck which she drove with skill. She would have helped lift the crates, but he prevented it.

"I can manage better by myself," he said, so she turned away and dismissed the pickers, gathered up the remaining checks and piled the empty crates and baskets.

"You come out from town this morning?" she asked when everything was done.

He nodded.

"Then just follow the road back, and instead of turning down Front Street, keep right on and you'll see the station. Ed Gannett, he's the agent. Tell him these are from James Rumbly's place and he'll tend to them. Then come back and get your dinner. You'll have to eat with us to-day, I expect; but I'll phone over to the Lloyds' about boarding you after this. And say—handle that steering wheel easy. And the brake's not much good. Still, I don't think you'll need it." She swung herself up on the back of the truck. "I'll jump off at the house."

He returned from a successful trip and the acquiring of the genial acquaintance of rotund Ed Gannett, with a clamorin appetite, and after he had washed at the pump he was called into the kitchen of the farmhouse, where the table was spread for three. James Rumbly was already in his place, and Laviney was bringing in the food.

"Just set down," she said. "It's plain but it's fillin'. You want a cup coffee?"

"I don't believe so," said Harvey. "This water looks good to me. I got some thirst."

"Cold water don't set well on the stummick," said James Rumbly. "I got to have my coffee three times a day to keep up my strength."

"You bad sick?" asked Harvey politely.

The question launched the older man into a long recital of his various aches and pains and miseries, of the doctors who had treated him, the number of bottles of medicine he had taken.

"Doc Hardcastle, he won't come out here any more less'n Laviney sends for him," he confided proudly. "He says there ain't nothin' he can do for me."

Harvey glanced at Laviney, and met a warning glance of her strange brown eyes. Evidently she appreciated the irony of the doctor's comment, but did not choose that her father should be undeceived. Harvey changed the subject.

"What'm I going to do this afternoon?" he asked.

She gave him a sudden transfiguring smile for his tactfulness—a smile that told him that for the first time she saw him as a human being and not a newly acquired farmhand, a smile that changed her into a much younger and a startlingly pretty girl.

Old Weather Signs

OBSERVE which way the hedgehog builds her nest,
To front the north or south or east or west;
For 'tis true what common people say,
The wind will blow quite the contrary way.
If by some secret art the hedgehog doth know,
So long before, the way in which the wind will blow,
She has an art which many a person lacks,
That thinks himself fit to make our almanacs.

Poor Robin's Almanac.

"I reckon we'll both cultivate corn," she said. "It needs it bad."

"Laws, if I only had my health and stren'th," sighed Mr. Rumbly, "there's nothing I like better than a bright day like this and a cultivator. Going to take the mules, Laviney?"

"I reckon so. And you mustn't let old Whitey fool you," she went on, addressing Harvey. "Whitey's a good worker when he has to be, but he'll stick a leg over the trace, or slow down till he's just about crawlin', or go lame, when he's got a new driver. He's an old rascal, Whitey."

"Lead me to him," said Harvey. "I'm some rascal myself. I drove mules in the war."

"Oh, were you in the war?" demanded Laviney avidly.

"First to volunteer, last to quit, that's me. No, but honest, not kidding, I was there."

"We doubled our crops," broke in James Rumbly proudly.

"Old faker—betcha the girl did it all!" thought Harvey with indignation. Aloud he said: "That was a mighty good dinner, Miss Laviney, and now if you'll lead me to that mule—"

"Set down on the porch and smoke with Pa for ten minutes," said Laviney. "I want to feed Shep and wash the dishes and get a little something fixed for supper."

SO FOR ten minutes Harvey rolled his own and sent up a cloud of smoke to mingle with the fumes of James Rumbly's pipe, and listened in a happy torpor to that would-be invalid's pathological romances. Patent medicine didn't do him much good, was the burden of the old man's theme. ("Not since they took the kick out of it," was Harvey's mental obligato.) But he managed to do the light chores now and then and help out when his health and strength permitted, and he gave Laviney the benefit of his experience in wise counsels, and tried to bear his sufferings as an affliction from on high—the way a church member and professing Christian should. But nobody realized what he suffered, not only physically, but mentally, thus to be debarred from doing his share of the world's work. And then he lit his pipe again, and leaned back in his cushioned rocker and prepared to drowse. A little nap after dinner sometimes helped him, he said uncomplainingly.

Then Laviney came out, and they went to the barn, and Harvey Chester saw for the first time that peaceful implement of husbandry known as a light one-horse cultivator. To this new acquaintance was added Whitey, the mule, a cream-colored animal of settled age, with seesawing ears and the wisest eyes in the world. Whitey entertained a low opinion of Harvey at first glance, that was evident. As Laviney led out another mule and began to harness him to a second cultivator, Harvey remonstrated.

"You're not going to do this rough kind of plowing work, are you?"

"It isn't hard," said Laviney. "There's nothing on a farm a woman can't do as well as a man. I'd a heap ruther follow a cultivator than set in the house bent over a sewing machine."

She started him in the young corn, and she herself went to the field across the road. He found himself, when he wasn't swearing at Whitey and circumventing that clever animal's desire for repose, and holding the cultivator straight so as not to root out the corn, thinking of what Laviney had said. He'd seen the French women working in the fields, but they were not like her—they were thick, weather-beaten creatures, without grace, without beauty. Gee—Laviney was some peach when she smiled! He wondered what she would be if she ever laughed. He hadn't, so far, seen her laugh. It struck him that all the girls he had known in his young life—and they were not few—had been giggling, ridiculous creatures.

Whenever he had made a round he watched for her, and sometimes she was near enough for him to call out reports. "Say, I'm gettin' on pretty good," or "You didn't tell me the half about this here now mule." He tried not to sound fresh, but he wanted to talk to her, and her answers indicated that she wasn't inclined to be touchy.

After a time his legs and back began to ache, and the muscles of his arms gave notice of overstrain. The afternoon sun was fiendishly hot.

"By golly, it's as hot as the ster'otyper's room!" he told himself more than once. "Maybe I was a little too smart thinking I'd work on a farm all summer," he warned himself. "And yet," he admitted, "I kind of like it."

WHEN quitting time came he tramped wearily back to the barn, helped Laviney stable the mules and feed them.

"You're tired," she said. "I'll do the rest of the feeding and bedding down tonight, and the milking."

A flaming red came over his face.

"I guess I can do as much as any girl," he answered huffily. "I'm not quitting till you do."

He wished he had not been so brash when she put him down beside the hind quarters of a restless brown cow and showed him how to milk. All he could get was a few reluctant drops.

"My gosh!" he muttered. "My gosh—what do people want milk for anyway! I'd say let the cows keep it."

It was late twilight when they were through, and by that time he was so drowsy from fatigue that he could hardly see his way about. But he was not too drowsy to ask an awed question.

"Say, d'you do this every night? Every night, every day, every week, every month, every year? Excuse me for saying so, but if you do, you must be pret' near as husky as Jack Dempsey."

Laviney smiled, and again he had the sense of her rare and elusive beauty.

"No, I don't. But that good-for-nothing darky that lives down in our tenant house didn't come to-day—filled himself all up on bip-bap, and is half-drunk and half-sick. Usually he does all this."

"Well, I'm glad to know it," said Harvey. "Say, what's bip-bap?"

"It's the liquor the darkies make out of cornmeal and tomatoes. That's what they call it. Mose bought himself a half-dozen cans tomatoes down at the store without my knowing it, and mixed up a mess about three weeks ago. I was down last night and threw it all out, but not before he'd got a skin-full. I certainly was provoked—hard as it is to get help around here! When you come along this morning seemed 'sif it was too good to be true."

He heard her with a strange thrill of pride and elation, and wonderment too, that the words of this country girl in her faded country clothes could affect him, Harvey Chester, who had known so many girls, "swell lookers," back in Philadelphia, as well as some of the dashing demoiselles of France. But the wonderment was swallowed in his weariness.

He ate his supper with his head fairly dropping into his plate. After the meal, when she showed him the back stairs, he stumbled up them blindly to find himself in a low-studded clean bedroom. In five minutes he was in bed and fathoms deep in sleep.

BUT in the morning he awoke with glorious refreshment. He slipped early out of the house, and took a dip in the creek, coming back to find Mose, battered from his bout with illicit liquor, pottering about the stables and languidly achieving the morning chores. Laviney, busy in the kitchen, greeted him cheerfully.

"All rested?"

"Yeah—and hungry as a wolf."

She put an eight-inch stack of griddle cakes before him, and poured strong coffee, offered ham swimming in red gravy. James Rumbly was not visible.

"Pa's not feeling so well this morning," the girl said. "He thought he wouldn't get up yet a while."

After breakfast she told him to go over to Lloyds' and see about his board there.

"I phoned last night," she added. "They're willing to take you, and they'll charge four dollars."

"Four dollars a day!"

Laviney laughed outright.

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"A week." She looked at him speculatively. "I think—you'll like it—over to the Lloyds'. Go right out our lane, turn down the road away from town, and it'll be the first house on the right, close to the road. When you come back you can go on with the corn. I'll be in the strawberry patch till noon, and when it's time to run the crates down to the station I'll send Shep after you."

A strange girl. Harvey Chester found himself thinking of her eagerly as he tramped over to seek the Lloyds. Got a head on her shoulders. And a good cook — gee, some hot cakes they were this morning! And kind and gentle with that worthless Pa of hers. And pretty—but not pretty like any other girl he'd ever seen. He wondered what she'd say if she knew why he'd come there. He smiled a little over his secret, smiled with boyish satisfaction. Well—gee, this must be the Lloyds, and he'd nearly passed it.

IT WAS as Laviney had said, set close to the road, and it had a look of proud pretention, fallen and decayed into ragtag, out-at-elbows shabbiness. It needed paint, new shingles, one corner of the front porch sagged dangerously, there were broken window panes, the screen door was bulged and broken. As he neared it, a girl in a loose pink cotton wrapper, her hair in curl papers, came to the door and eyed him with frank curiosity.

"This Mr. Lloyd's?" he asked.

"I know who you are—you're Harvey Chester, the fellow Laviney Rumbly's sent over to board with us, aren't you?" She drew back and peeped at him coquettishly. "What'll you think, coming and finding us every which-away!"

"Come on out and let's see if you are," replied Harvey. This was the sort of banter he was used to. "'Course, I don't want anybody to take me to board less they want to—but I always sure did like pink dresses."

"Oh, my—aren't you fresh!" said the girl. "Now, if it wasn't for my curl papers—"

"Ah, come on—I'll have to see 'em some time, won't I?"

She came laughing to the door. She was little and fair-haired, and pretty in spite of the curl papers, and quite aware of it.

"You're something awful," she said. "Listen—you'd better not go pulling this smart stuff when Pa and Ma are around. Well—what you staring at? We told Laviney we'd take you to board, and we will—but you look to me as if you et a lot."

"I do. I got hollow legs. Say, what's your name, Miss Curlpapers? Besides Cutie and Sweetie, I mean."

"I'm Effie Lloyd. I'm the youngest. I got two sisters—Ella and Mame—"

"Bet they're not as cute as you are!"

"I'll say they're not, but they don't agree with me. Look, Mr. Smarty,—dinner's at twelve, and supper's at six. We'll ring the farm bell for you. Now run along and get back to your work. Laviney'll dock you. She's as hard as nails, Laviney is."

"Oh, look here, now, Effie,—"

The girl flung up mocking hands.

"There now, stuck on her already, I bet. What there is about a girl that's all sunburnt and works in the field like a man to get the fellows, I don't know. But Laviney does it. If you find out her secret, tell it to me. I'd like to try it."

"I guess you don't need much help in that line. Well, so long—I'll be back at twelve. Don't forget I eat a lot. And give my love to your sisters."

HE SWUNG back to his work laughing. This was going to be fun—seeing a girl like that at every meal-time. Effie—he'd never known a girl named Effie before. And what was it she had said about Laviney—getting the fellows? Funny thing for her to say—but there, it didn't take any cleverness to see that Laviney was worth a hundred Effies. He began to whistle his favorite tune, nor did he slack when he found Mose waiting for him, with the cultivator of yesterday and the saturnine Whitey. Into the cornfield he marched like a valiant soldier. The tune helped:

"Machine-gun bullets were whistling round me—
The old tin hat felt mighty small—"

This was sure a wonderful country—wonderful girls—he'd say so. Dinner-time was only some five hours away, and then there'd be supper-time, and to-morrow three more meals. And, in the meantime, there was Laviney, tall and straight and quiet, out in the strawberry patch, where presently he'd be driving the fliv to meet her. Talk about a wild cat for luck! That sure was Harvey Chester.

He saw Effie without her curl papers at dinner-time, and he saw Ella and Mame too, and Mrs. Lloyd—a fat, creased, and blowsy replica of her daughters; also their father—a discouraged, gaunt old man, severe and suppressed. The meal was bountiful, but served with a wild disorder that was characteristic of the household. The three girls clustered round Harvey as he ate, contesting for his attention.

"Leave him eat," giggled Mrs. Lloyd. "He's got to get back to work. Comes supper-time he'll have more leisure to flirt around with you girls."

"What in the world ever made you leave the city and come to this God-forsaken hole?" demanded Effie, disregarding her mother's plea. "I'm just crazy about the city. I had a job in Balt'mer in a mill'nery store for six months, and it was grand."

"What made you leave it, then?" asked Harvey, curious in his turn.

Effie's simpering little face darkened with the shadow of tragedy.

"I got sick," she said shortly. "And when I got out the hospital they'd filled my place. I didn't have any money saved, but soon's I can I'm going back. Some of my friends there, they're looking around to get me another position."

"Yes they are—not. They've forgot all

Picture by U. S. Department of Agriculture

"My boss surely is mean. Here it is supper-time and no milk in my bucket!"

about you," spoke up her father from the head of the table, where he sat silent and unnoticed. "You ain't going back on my money, and you ain't got gimp enough to earn any for yourself."

"Now, Pa! There's no way for any girl to earn any money round here," said Mrs. Lloyd hastily. She gave her husband a hard glance of warning.

HARVEY looked at them puzzled. "I thought women in the country raised chickens and—and made butter—" he offered.

"All the chickens we raise we eat," said Mame Lloyd. "And eggs, too, and the butter. We don't believe in scrimping and pinching over here, like Laviney Rumbly and her Pa does."

Again a fling at Laviney Rumbly. Harvey felt the same little uncomfortable sting of resentment that he had at Effie's earlier sally.

"Miss Laviney seems to me a pretty smart girl," he offered blandly. "I never saw a woman work like she does before."

"No, ner you never will," again ventured the silent elder Lloyd. "If more women round here did like her, it'd be better fer all concerned."

A chorus of derisive laughter from his wife and daughters met this remark.

"I'd rather see my da'ters dead than traipsing round the fields like a darky man," declaimed Mrs. Lloyd, her double chin quivering. "I'd like to see all my girls in the city, married to some nice man with a good trade, or working in a nice clean store or some genteel employment. Much as I'd miss 'em, I'd never stand in the way of their bettering theirselves. You got a trade, Mr. Chester?" Her little eyes bored into him.

"My gosh, that old girl'll have me married off to one of 'em if I don't watch my step!" thought Harvey. "No'm," he said aloud. "No'm, I've never been what you might call a steady worker at anything. I don't bother work—work don't bother me, as the song says. If I make my board and clothes, I'm doing as good as I want. Guess I'll be stepping back now. So long, ladies! Till supper-time!"

Effie followed him to the door.

"They's a moving picture show in town," she said meaningly.

"Well, ain't they progressive! You and me'll have to go some time."

"That's a promise."

"She works rapid," commented Harvey. "A kind of nice girl, but too darned man-hungry. And that house is a holy show." He contrasted it with the bare and orderly cleanliness and peace of the Rumbly home, as he neared it. On the side porch he found Laviney and her father.

"Get your dinner all right?" asked Laviney.

"*And* an earful of talk," supplemented Harvey cheerfully.

"The Lloyds are shiftless, but Mrs. Lloyd's a good cook. I thought you'd like it over there, lively and all."

He searched her placid face for hidden sarcasm, but found none.

"You think I need liveliness?" he asked.

SHE showed a faint surprise.

"Most young men like liveliness, seems to me," she answered.

"How about girls?" He was determined to make her look at him, think of him.

"Why, I suppose girls do, too—most of 'em."

"And what kind of liveliness do you like? Moving pictures? The city? Would you like to work in a store?"

"Me—no," she said simply. "I like to be outdoors. I never could be cooped up anywhere. I guess you must've been talking to Effie. Ever since she worked in Balt'mer she's been possessed to go back."

"Effie's a nice lively girl," remarked James Rumbly. "So's Ella and Mame. Only they've been brought up all wrong. Girls oughtn't to be brought up to despise farmin' when that's their father's job. It's their mother's fault. She's a light woman, Sarann Lloyd."

"She's not light in weight," said Harvey dryly, and the old man cackled his appreciation of the obvious joke.

"This doesn't get us anything sitting here and running down the neighbors," broke in Laviney. "I'm going to put in the afternoon getting the garden straightened out. Harvey, Mose will be waiting for you. He won't start till you do."

It was dismissal, but not unkindly. And it was not until Harvey had connected with Mose and Whitey that he remembered that she had not answered his question about motion pictures. Perhaps she was too proud to go to the movies with the hired man, and had spared him, by overlooking the question, the mortification of having an invitation refused. He felt hot all over at the thought. He determined that he would send to his boarding house in the city and get some good clothes. He'd make these country dudes look like thirty cents. He'd show her whether he wasn't just as good as she was. Then he cooled. Perhaps she'd never even thought of such a thing. She was so simple, and friendly—only—only—it was as if she was friendly to the whole world, and not to him alone. He sighed, and slapped Whitey's lean flanks with his reins. Cultivating corn gave a fellow an awful lot of time to think.

At the end of the day he was not so tired as he had been the day before. He had never let his muscles grow flabby or stiff—his drill sergeant had taught him what a crime that is. He was unfeignedly glad he hadn't. Only—it was dreamy, dull, monotonous work, this farming. Up one row and down the next, and up the next and down the next, endlessly. Not like the rattle and bang and hustle of the stereotypers' room. Nothing to see but an occasional passing team or car, or a lazy buzzard seemingly motionless in the air. Sometimes he could hear Mose singing in his part of the field.

"BY GOSH," said Harvey to himself, "a little more of this and moss'll grow on me. I won't know whether I'm dead or alive. I don't see how she stands it." He was again glad he was going to get his meals at the Lloyd's. "They may try to marry me, but at least it won't be quiet as a graveyard. And yet—there's something about this here now working on a farm. . . ."

He glowed with pleasure when Laviney said to him, a few days later: "You take hold real apt. Guess your folks must some of 'em been farmers."

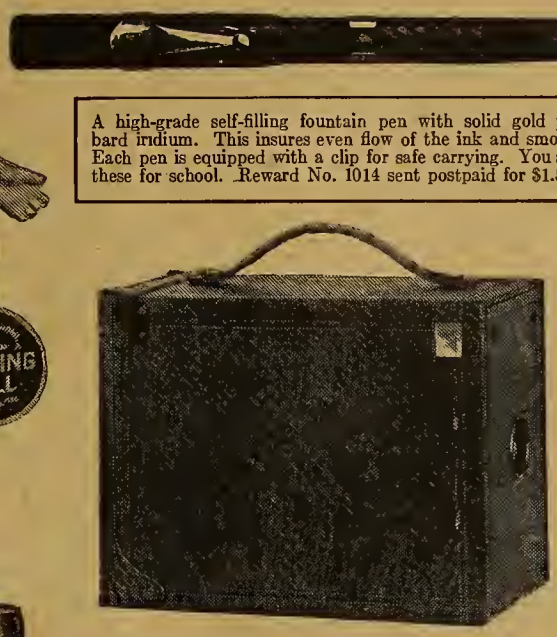
His lips quirked over his secret. But it was not time to tell it yet.

"Maybe they was," he remarked. "There's worse businesses."

[TO BE CONTINUED]

SPECIAL HOLIDAY REWARDS for HUSTLING BOYS and GIRLS

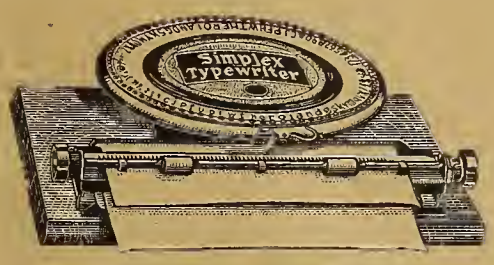
We are very glad to offer our girl friends this pretty 16-inch walking doll. Yes, besides being the cutest and best made doll you ever saw, she walks. And will sit down, too. She comes with a pretty gingham dress trimmed with lace, a cute little cap, slippers, and stockings. She has blue sleeping eyes, dark brown hair, and movable arms. But the fact that she walks is the real reason all the girls who own her say she is their favorite doll. Make one of these darling dolls your own to-day. Reward No. 1049 sent postpaid for $2.50 in subscriptions.



This Eastman Premo Jr. Camera makes beautifully clear pictures of just the right size to paste in an album—2¼ inches by 3¼ inches. It is a genuine Eastman so you may be sure it will give you good service. You can take either snap shots or time exposures with it. You will have many a joyful time with this camera. Reward No. 2012 sent postpaid for $2.50 in subscriptions.

A high-grade self-filling fountain pen with solid gold point, tipped with bard iridium. This insures even flow of the ink and smooth, clear writing. Each pen is equipped with a clip for safe carrying. You should have one of these for school. Reward No. 1014 sent postpaid for $1.50 in subscriptions.

One of the best jack-knives made. Has a stag handle and two strong blades, made of high quality steel, which will hold their edges an unusually long time. Easy to open and closes with a snap. Reward No. 1017 sent postpaid for $1.50 in subscriptions.

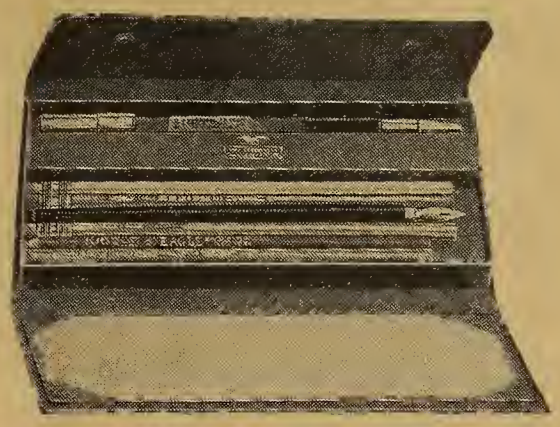


Any boy or girl can quickly and easily learn to operate this simplified typewriter, and with practice get up good speed. Just the thing for writing letters or doing your school work. Your teacher will be delighted when she sees what neat work you turn in, and you'll get better marks as a result. Reward No. 1051 sent postpaid for $2.00 in subscriptions.

This beautiful lady's wrist watch has an adjusted jeweled cylinder movement and heavily nickeled case. Stem wind and stem set with an open face and radium dial which enables you to tell the time at night as easily as in the day. Each watch comes complete with a black silk grosgrain ribbon, which is quite the latest thing. Size same as shown in illustration. Reward No. 1002 sent postpaid for $4.00 in subscriptions.

Any boy or girl who goes to school will appreciate a dandy all-metal lunch kit like the one shown above. Each kit contains an Icy-Hot bottle which will keep any liquid piping hot or ice cold, as desired, for a period of six hours. This bottle fits in the upper compartment of the case as above illustrated. We have only a few kits left so if you want one you better hurry. Reward No. 1097 sent postpaid for $4.50 in subscriptions.

The Little Giant Motion Picture Machine shows honest-to-goodness movies. With it you can give shows right in your own home. Also satisfactory for showing magic lantern slides. Steel body, brass gears, red fly-wheel, nickel lens tube, powerful double lens. Two kinds—one for house circuit connection and one for battery connection. Be sure to state which you want. Reward No. 1048 complete with 3 reels sent postpaid for $4.50 in subscriptions.



You need a writing cabinet like this for school. Case is made of rich-looking grain imitation leather, the inside flap of which contains a blotter. Outside flap has two fasteners. Contents are: 6 high-grade pencils, a penholder, an eraser, a metal point protector, and a metal case of extra pen points. Reward No. 1042 sent postpaid for $1.00 in subscriptions.

No more serviceable watch is made than this heavily nickeled stem-wind, stem-set radium-dial watch. Radium dial enables you to see the time clearly in the dark. Watch keeps good time. Every one is fully guaranteed and will be replaced free of charge if it does not give satisfaction. A handsome genuine leather fob free with it. Reward No. 1041 sent postpaid for $3.50 in subscriptions.

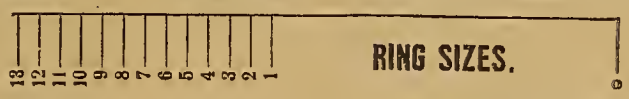
Here is a pencil you will be very proud to own. It is silver-finished, beautiful in appearance. Stays sharp always. A single turn at the top brings out the lead. Top contains six extra leads and each pencil is equipped with a clip. Reward No. 1034 sent postpaid for $1.00 in subscriptions.

"What a pretty la valliere you are wearing!" That's what everybody will say who sees you wearing the one shown here. The chain is gold-filled, guaranteed ten years. Pendant is set with a synthetic ruby and has a pearl drop. You will be very proud to own it. Reward No. 1039 sent postpaid for $1.50 in subscriptions.

A genuine cowhide leather music roll in a beautifully rich tan color. All your girl friends will openly admire it and secretly envy you for having such a pretty and yet substantially made music roll. It will wear ever so long. Reward No. 1058 sent postpaid for $2.00 in subscriptions.

A beautifully engraved gold filled bracelet, guaranteed to wear without tarnishing for 10 years. Two sizes—one for a child and one for girls between 8 and 16 years of age. Reward No. 1040 sent postpaid for $2.00 in subscriptions.

These genuine gold-shell rings are positively guaranteed to wear without tarnishing for five years. Replaced free of charge if they do not. Tiffany style setting. It is impossible to appreciate the sparkling beauty of the stones without seeing them. A ring for every month. Besides the ones illustrated there are the Diamond (April), Emerald (May), Agate (June), Opal (October), Topaz (November), and Turquoise (December). To determine your size cut out scale below and measure your finger. Be sure to state size and name of ring you want. Reward No. 1052 sent postpaid for $1.00 in subscriptions.



How to Earn a Reward

It's easy. Just show your copy of *Farm and Fireside* to your neighbors. Tell them it costs 50 cents for one year or $1.00 for two years. They will subscribe gladly when they see what a fine magazine *Farm and Fireside* is, and you tell them how much your father and mother like it. Try hard for the two-year subscriptions because they count up so much faster. Do not stop at one reward, but earn several. Soon as we get the coupon with your subscribers' names and the money you collect we will mail you your reward or rewards postpaid by return mail. Hurry and earn your rewards before Christmas.

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Our Letters to Each Other

Don't farm so hard that you forget the big idea, which is living

"DEAR SIR: A lot of farmers get to thinking too much about how they can make a better farm, better livestock, better soil, and better equipment, and lose sight of the fact that the real business of farming is to make money for themselves, so that they can be better men with better families, and get more fun out of life.

"In doing this they are working a great injustice to themselves and to their wives and children.

"Jones, one of the best farmers I ever knew, made this mistake. No one in the county, perhaps even in the State, had bigger or better crops. His buildings and equipment were modern and complete; his animals were well bred, and always stood near the top when they went to market. He used tons of fertilizer; no sooner did the farm scientists develop some new idea than he tried it out. Nor did he neglect his family. They had a small car, and most of the modern appliances were in their home. Good books and magazines found a place in their living-room.

"In many ways Jones was a success; in fact, he was generally considered a successful farmer. But wait until I've finished.

"The Jones family was forced to work very hard. In addition, it took a lot of hired help to carry on all the extra things Jones was always doing—to make the tests, extra cultivations, extra weighings of livestock, etc. It seemed as though, no matter how hard they worked, they never got caught up.

"Furthermore, they were in debt for land bought, buildings, machinery, and other improvement. These debts worried Jones; he began to skimp on what he called luxuries. Not that he was stingy; it was just the way he valued things. He thought the boys ought not to go to so many dances; it cost money and tired them for work the next day. His daughter stopped her music lessons; she was rather gifted, too. Mrs. Jones kept on using cracked china and faded carpets. She was not robust, but she did all the housework herself while the daughter attended high school.

"One day, during silo-filling, Jones collapsed. After a lingering illness he died from a disease brought on by overwork. People from all over the county came to the funeral, and said kind things about 'Jones, the best farmer in the county.'

"The estate was settled. Neighbors had thought Jones rich. His insurance didn't begin to cover his debts. Everything had been in his own name; he kept the few accounts that were kept. Even his wife didn't know things were in such bad shape. Part of the farm had to be sold. Discouraged with farm life, Mrs. Jones sold out completely and moved to town. One of the boys became a farmer later, but that's another story.

"The trouble with Jones was that he *forgot the big idea.*

"Instead of making his farm give him and his family a good living, so that they could lead a pleasanter, fuller life, he became a *slave* to it. Instead of a means to an end, farming became an end in itself. He set his goal too high, and wore himself out making frantic efforts to reach it. And he made his family miserable while he was doing it. It wasn't the things they did without (they really lived better than many farmers do) so much as it was that they felt the emphasis was being put on the wrong thing, that they weren't getting anywhere.

"I think of Jones whenever I see a farmer who has lost his grip, his sense of perspective. City men do it too, but not so often. It would do a good many of us country folk good to absorb a little of the average city man's philosophy toward his job. Not many city people live for their jobs. They work so that they can live comfortably and enjoy life. Of course, some of them overdo the pleasure end of it. That's just as bad, perhaps.

"I wouldn't be writing this if I didn't *know* that there are other men making Jones' mistake. And the worst of it is that often they are good farmers; that is, they raise good crops, have good stock, and use modern methods.

"But their plan is wrong. Often they don't keep accounts, they don't know what things cost to produce, and what things are giving them a profit. Or, if they do keep accounts, it only serves to make them worry, and fret, and work all the harder. Instead of setting a reasonable goal, they 'bite off more than they can chew.' They try to get ahead too fast, and get snowed under with debts and work.

"As I see it, the reason a lot of men who don't practice good farming get ahead so fast is that they have a plan. They may not farm in the most approved fashion, but they make money at it. Not that I favor sloppy farming. All of us know that good farming pays. But good judgment and intelligent business management, combined with good farming practice, always pay better than good farming methods *blindly* applied.

"Very sincerely yours,
"W. S. A., Ohio."

You are quite right.

I don't care how much money a man makes, nor how fine a place he's got, nor how many purebred animals he boasts, if he and his family don't show the results of that prosperity in the comforts, pleasures, and refinements of living, then that farmer is a *prosperity* miser just as some men are *money* misers, and both are to be equally condemmed. Work, and work hard, of course, but don't "live to work;" rather, "work to *live.*"

We men and women who get FARM AND FIRESIDE together for you, take this occasion to wish you all a very merry Christmas, and a happy and prosperous New Year.

George Martin

Picture by J. C. Allen

This picture of Curtis Ellis of La Fayette, Indiana, and his horned steed, "Billy," is more than just a picture. It's a good illustration of an old saying, "In times of peace prepare for war." Billy doesn't appear to have much temperament, but from his master's position and attitude we take it that Curtis has known Billy longer than we have

Why Not License Critics, Like Trucks?

By Bruce Barton

ON THE way from my house to my office I have to pass the statue of William H. Seward, once Governor of New York and Secretary of State under Abraham Lincoln.

Sometimes, it seems to me, that I can detect around the corners of his mouth a curious little smile.

It was Seward who signed the treaty with Russia securing Alaska to the United States for a payment of $7,200,000. How the critics of his time denounced him for his foolish extravagance! Alaska was labeled "Seward's Ice Box" and "Seward's Folly." There was nothing too bitter to say against the man who would squander the nation's hard-earned cash in exchange for such a useless possession.

Alaska, of course, has paid for itself hundreds of times over; the sons of the men who denounced Seward have erected a statue in his honor. But all day long, around his feet, the newsboys cry their papers, each one filled with the outbursts of a new flock of critics.

No wonder Seward seems to smile.

Michaelangelo once visited a chapel that was being decorated by Raphael, who was absent at the time. Noticing that the figures in the unfinished decorations were too small in proportion to the height of the room, Michaelangelo sketched an immense head and shoulders on the wall, put on his hat, and walked away.

"Why did you make that sketch?" he was asked.

And he answered:

"I criticize by construction, not by finding fault."

These are days when governments all over the world are looking earnestly for added sources of revenue. Why does not some government seriously consider licensing critics the way the States license automobiles and trucks?

The license should be preceded by an examination to test the critic's right to criticize as the State tests a truck driver's ability to drive. And the examination should be based upon Michaelangelo's principle—the capacity to be constructive instead of the mere desire to find fault.

Here comes a man who wants to criticize farmers, for example. All right, sir, how much do you know about farming? Have you ever actually planted anything and tended it through a difficult season to harvest?

Here comes a man with a grievance against bankers. Very good, but what has been your experience in banking? What reason have you to suppose that you are more honest or more intelligent than the men who are struggling with the perplexities of the banking situation now?

And here are the mass of critics who know just where the Government is making its mistakes, and just how business men ought to revise their practices. Line them all up and let's see how many of them have ever built a business or met a pay roll or made a success of anything at all.

The critics who pass the test successfully should pay their fee, and receive number plates to wear fore and aft like trucks, so that they may be known by passers-by and be given right of way.

But hit-or-miss criticism by unlicensed critics ought to be under the ban, like driving by unlicensed drivers.

There is an immense amount of work to be done in getting the world rebuilt again. The Michaelangelos who come to us quietly with definite specifications for improvement render a very great service.

But there are altogether too many folks who couldn't handle a brush, or follow a plow, or add up a column of figures correctly to save their own lives, who are just standing around and telling us that whatever we're doing is wrong.

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To Light Your Farm and Lighten Your Labors

Out on the prairie, in New England valleys, on lonely mountain sides, thousands of farm homes, churches, schools, and stores are now electrically lighted by the current from Exide Batteries.

In pumping water, milking, churning, and in many ways within the house, the labor of thousands of men and women is being saved by Exide power.

A large majority of all the small electric light and power plants now in use are equipped with Exide Batteries. They pay big dividends in comfort.

The power of the Exide Battery lasts for years. It is so rugged and so simple that you will call it "fool proof." A mere child can look after it. It lasts for years. The heart of a lighting and power plant is the battery. Make positive before ordering that yours has an Exide.

And for your car also, there is an Exide made the right size and built to give you long-lasting power and care-free service. There is an Exide made for every purpose, and into each one is built the experience of the oldest and largest manufacturers of storage batteries in the world.

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The nearest Exide Service Station has a battery the right size for your car. If your present battery needs repairs, no matter what make it is, it will be repaired skilfully and reasonably. If not in your telephone book, please write us for address.

Oldest and largest manufacturers in the world of storage batteries for every purpose

CASHMERE BOUQUET TOILET SOAP

IN the foreground of the group of Colgate articles is Cashmere Bouquet Soap with its dainty old-fashioned wrappings. A box of this fragrant soap is a gift which you can make to many on your Christmas list. An acceptable gift for anyone, from Grandmother to the youngest niece.

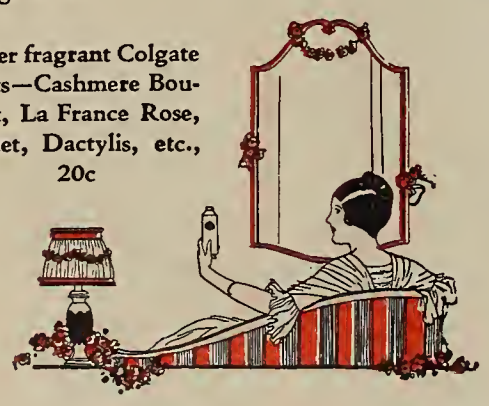
Other perfumed soaps in artistic wrappings, such as Florient, Cha Ming, Eclat and the favorite single flower perfumes may be chosen, ranging in price from 50c to $1.50 for a box of three cakes.

Cashmere Bouquet Soap
Large size, three cakes in a box—70c.
Medium (10c) size, six cakes in a box—55c.

Florient Talc
Flowers of the Orient

IF you have a circle of girls or women to whom you wish to send some little remembrance at Christmas time, doesn't a box of Colgate's Talc seem to you about the nicest useful article you could find at so small a cost? And if you select the newer perfumed Talcs, powdered perfume they are called, Cha Ming or Florient, 25c, you will have a box of artistic design, a decoration for any dressing table.

Other fragrant Colgate Talcs—Cashmere Bouquet, La France Rose, Violet, Dactylis, etc., 20c



Florient Perfume
Flowers of the Orient

AMONG your friends are sure to be several women whose perfume preferences you know. Some may have made the famous International Perfume Test and chosen *Florient as their favorite perfume. What could you give them at Christmas time which would cost so little and give so much pleasure for a long time, as a bottle of Florient Perfume?

A dainty flask $1.00
Others up to $10.00

Perhaps the favored perfume is Cashmere Bouquet, Violette de Mai, Radiant Rose or other Colgate perfumes. You will be safe in giving a bottle of Colgate Perfume to any woman as a Christmas gift.

A cheery red tube in every Christmas Stocking

25c large size

Is safe, cleans thoroughly. Its delicious flavor encourages even the children to use it regularly.

Colgate's is recommended by more dentists than any other dentifrice.

"HANDY GRIP" Shaving Stick and LILAC IMPERIAL Toilet Water

REG. U. S. PAT. OFF.

IT is doubly pleasant to see a gift that you have bestowed being used and enjoyed. That is why the children of the family are encouraged to give practical gifts, such as toilet articles.

If Sonny gives Father a "Handy Grip" Shaving Stick or a bottle of Lilac Imperial, the after-the-shave Toilet Water, he will enjoy seeing them in daily use. And Father will enjoy using them.

"Handy Grip" Shaving Stick 35c
"Handy Grip" Refill . . . 25c
Lilac Imperial Toilet Water $1.00

Florient Gift Box
Flowers of the Orient

WHEN Uncle John asks you "What shall I give Betty for Christmas?" your answer is—a *Florient Gift Box. All of the Colgate Gift Boxes, Cha Ming, Eclat or other Colgate Perfumes, are attractive in appearance. And surely a supply of toilet articles, face powder, soap, toilet water and perfume, in the same favored fragrance, is a useful gift.

Colgate Gift Boxes $3.50 to $12.00

*Florient, you remember, won first place in the International Perfume Test, when six perfumes were judged by an impartial jury of American women.

Your favorite store can show you many Colgate Gifts for man, woman and child. *Ask to see them.*

COLGATE'S *for* Christmas

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